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# For the Defense of Democracy*

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NO MORE important problem faces the American people than the formation of the citizen. No higher duty devolves upon the schools than the development of a program of education for citizenship. Democracy is under attack. Over the radio come the denunciations by the dictators. Alien "isms" are abroad in the land. The United States holds to Democracy. This ideal was chosen by the Fathers; it was given to us; and we in turn hope to hand it on to our children. We hope they will be ready. We hope they will protect and advance it. Are they receiving the proper training? Is our plan of education for citizenship sound?

When this question is asked in Germany, there is one answer. They know what they want and how to get it. In public, at least, the people of a dictatorship stand together. No German boy would take the Oxford Oath.[1] When such a question is asked in a Democracy, there are several answers. We do not agree on what we want, and for every aim we have several plans. We form parties and groups. We present no solid front.

## DEMOCRACY AND DICTATORSHIP

Democracy is different from dictatorship. Education for Democracy is different from education for dictatorship. No argument is needed. The contrast is plainly revealed in the two messages to youth which follow:

*A section of the Report of the Dean of Teachers College for the Year 1937-1938.

[1]An oath taken by certain students at Oxford University: "This house will in no circumstances fight for its King and Country."

## *EXCERPTS FROM ADDRESS TO GERMAN YOUTH AT NUREMBERG, SEPTEMBER 9, 1934*

By Adolf Hitler

You must now grasp, and learn while you are young, what we would like to see throughout the whole of Germany. We know that nothing is given free in the life of peoples. *Everything has to be fought for and gained by struggle.* . . . No one will be able to master in future that which he has not learned beforehand and to which he has not disciplined himself. And we want you German boys and German girls now to absorb all that we expect of Germany in times to come and all that we should like to see happen in Germany. *We want to be a people, and you, my youth, are to become that people.*

In time to come we do not want to see classes and ranks, and therefore you must not allow class pride to develop within you.

In time to come we want to see one Empire; therefore you must discipline yourselves into one organization.

In time to come we want this people to be faithful; therefore you must learn fidelity.

We want this people in the future to be obedient; you must therefore train yourselves in obedience.

We want this people to be peace-loving, but courageous; you must therefore learn to be peaceful and courageous at the same time. . . .

We do not want this people in time to come to be weak, but strong enough to withstand the hardships of human existence. You must therefore steel yourselves while you are young.

*You must learn to be hard and endure privation without ever giving in.* . . . We want you in the future to be a proud people; therefore in your youth you must live in true pride. You must be proud to be the youth of a proud people, so that in the future your youthful pride becomes the pride of the generations.

. . . We shall pass away, but *in you Germany will continue to live,* and when there is nothing left of us, you will have to hold in your own strong hands the flag which we once lifted from obscurity.

You must therefore stand firm on the ground of your own country, and be hard, so that this flag shall never drop from your hands.

. . . You cannot but be linked with us, when the great victorious battalions of our movement are marching to-day through Germany, I know you are joining the battalions, and we all know:

*Germany lies in front of us; in us Germany is marching; and after us lives Germany!*

## *EXCERPTS FROM ADDRESS TO THE YOUTH OF THE BRITISH EMPIRE AT LONDON, MAY 18, 1937*

By Stanley Baldwin

We are passing. You are the governors of the future. We are passing on to you the duty of guarding and safeguarding what is worthy and worth while in our past, our heritage and our tradition. . . .

It will be for you to protect democracy in whatever part of the Empire you may live. It must be defended from without, and equally it may have to be defended from within. And it may well be that you will have to save democracy from itself. You have to show the world—and in many parts of it an exceeding critical world—that there is nothing in democracy and its principles, its purposes, or even its methods which necessarily breeds timidity of outlook or mediocrity of achievement.

Courage, discipline, efficiency are as necessary to democracy as they are to any dictatorship, and democracy implies and demands leadership. . . .

. . . Here we have ceased to be an island, but we are still an Empire. And what is the secret? Freedom, ordered freedom, within the law, with force in the background and not in the foreground; a society in which authority and freedom are blended in due proportion, in which State and citizen are both ends and means.

It is an Empire organised for peace and for the free development of the individual in and through an infinite variety of voluntary associations. It deifies neither the State nor its rulers. . . .

The Christian State proclaims human personality to be supreme; the servile State denies this. Every compromise with the infinite value of the human soul leads straight back to savagery and the jungle. Expel this truth of our religion, and what follows? The insolence of dominion, and the cruelty of despotism. Denounce religion as the opium of the people, and you swiftly proceed to denounce political liberty and civil liberty as opium. Freedom of speech goes, tolerance follows, and justice is no more. . . . Slavery is a weed that grows in every soil. . . .

The torch I would hand to you, and ask you to pass from hand to hand along the pathways of the Empire, is a Christian truth rekindled anew in each ardent generation. Use men as ends and never merely as means; and live for the brotherhood of man, which implies the Fatherhood of God. . . .

Better than pages of argument, these two orations show the differences between education for Democracy and education for dictatorship. Hitler's demands are plain. They can be easily understood. The youth knows what to do. He can act at once. To become hard and firm one needs no education. To become strong and proud one need not think. All that is asked is to wait for the parade and fall into line. No wonder that the German youth is Nazi 100 per cent! He has before him a leader who personifies an ideal and a national aspiration. For Hitler the youth will serve. For Hitler he will gladly die.

Democracy demands a different loyalty and patriotism, more difficult to engender and maintain. Baldwin calls for loyalty to an ideal, not to a person. He invokes courage, not to march to battle, but to defend a way of life. There is no procession into which the British youth may step. To find the wisdom to protect Democracy and to "save it from itself," he must study and pray. It requires a liberal education to learn to "use men as ends and never merely as means" and to "live for the brotherhood of man which implies the Fatherhood of God." Surely it is a difficult educational program which will build loyalty to Democracy!

### EDUCATION FOR CITIZENSHIP IN GREAT BRITAIN AND FRANCE

It was in the hope of clarifying the issues and identifying the essential problems that it seemed wise to study the latest developments in England and France. It seemed reasonable to suppose that these democracies, face to face with dictatorship, might be questioning the education of the citizen and proposing plans for future improvement.

I found great concern, much questioning, and many commissions and inquiries, but, curiously enough in view of the threat of war, no more unity of thought than in the United States.

It was true that there was superficial agreement in the acceptance of certain general ideals of Democracy, each capable of many interpretations. Liberty, equality, fraternity, prosperity, with varying definitions and applications, were commonly stated as the aims of Democracy. Furthermore, since each of these can be achieved only by a change in the mind of the people, the general connection between education and Democracy was commonly admitted. It was not unusual to hear such statements as, "We are in a race between education and catastrophe";

"It is the teacher against the dictator"; "Education is our only hope."

The present program of education for citizenship, both in England and in France, is set by those who, in general, uphold the present social order. They consider that democratic government, imperfect as it may be, is far better in the long run than dictatorship. They believe that liberty of the person, conscience, property, and freedom in government and economic life, if kept by self-discipline from degenerating into license, is better than coercion from authority. They believe that equality, interpreted as equal justice, equal voice in government, and equal opportunity, is better than the secure uniformity of servitude. They believe that government by the people makes for peace and goodwill to men, which is the ideal of fraternity. They consider that self-government and the system of free enterprise have brought a high standard of living and have improved the material conditions of life. They hold that Democracy is not merely a form of government; it is a way of life. It respects the individual. It seeks to operate by discussion, reason, and popular consent. Persuasion is brought to the front. Force is relegated to the background. Rarely are the goals stated precisely. They are large categories capable of varying and sometimes conflicting interpretations. So their educational program has as its ideal the maintenance of standards of government and life in general as they now are, with such changes as may be needed to come surely and slowly. They assume Democracy. They do not argue for it. Education for citizenship is considered not only a task for the school. It is also carried on by the radio and the cinema, the theater and the press, and constant political discussion in the localities among all the people.

The Liberal Idea

However, the idea that education for citizenship can be purely incidental or the result of general training of the mind or character is losing its adherents; and to an increasing degree are being heard advocates of direct training by special courses, by extra attention to all subjects of study, by incidental and informal discussions outside the classroom, and by youth organizations such as the Boy Scouts. France has long required courses in Morals and Citizenship. Every teacher, every class, every youth activity, alert to its responsibility for education for citizenship seems to be the order of the day.

But there are those, both in Great Britain and in France, who would

make education for democracy something altogether different. They question the present social order. They speak of the power of huge banks and corporations. They refer to the "Two Hundred Families." They deny that democracy exists today either in government or in social life. They state that France and Britain may pretend to be democracies, but in reality they are plutocracies. Hence education for democracy should be the development of crusaders for change.

The Equalitarian Idea

This attitude is clearly expressed by the Rt. Hon. C. R. Attlee, a member of Parliament who, as leader of the British Labor Party, was offered $10,000 a year by the government "in order to help him devote his time more freely and effectively to criticizing everything that the government does." "To my mind democracy does not mean just the right to choose your rulers now and again, and the right to change them now and again. . . . Broadly speaking, in a capitalistic country . . . there is no citizenship for the worker. The worker accepts a dictatorship when he clocks in. Therefore, I deny that the democracy in a capitalistic country is a real democracy."[2] Major Attlee believes that there is no freedom in individual property or private capital in a modern capitalistic country. He urges that Great Britain move to the control of the means of life for all. "Economic equality," he says, "is a necessary feature of democracy." All should receive absolutely equal pay, even "the scientist, the artist, and the manual worker."[3]

There are many who hold this view in England. There are many more in France where they dominate the *Front Populaire* and until last spring controlled the government of France. Their argument is easy to follow. With the general ideals of Democracy they agree, but they insist that their special interpretation of these ideals must be realized in all aspects of life. They see two kinds of Democracy: political Democracy which affects our government and our individual rights, and economic Democracy which affects how we earn our living. *Political* Democracy, this group thinks, we now have to some slight extent, but we can never have it to any important degree until we have *economic*

[2] Rt. Hon. C. R. Attlee, "Economic Justice under Democracy," in *Constructive Democracy*, London, 1938, pp. 118-119.

[3] Attlee, *op. cit.*, pp. 119-120.

Democracy as well. Today we have Plutocracy, they say. Tomorrow we must have *economic* Democracy. Political power, today actually in the hands of the few, they charge, must be transferred to the many. To accomplish this, economic power must be transferred from those who own to those who earn.

—Educational Program of Marxists

One school of thought, one wing of this group, believes that economic Democracy cannot be achieved by the methods of political Democracy. Only by force can this change be made. These are the Marxists. The role of education, as they see it, is to cause Revolution.

The educational program of the Communists can be summarized as follows:

1. Educate all the people to form labor unions. This includes skilled and unskilled workers, both physical and mental, of all colors, creeds, and races, particularly the native peoples in the colonies. Put special attention upon certain workers who by tradition do not commonly join workers' movements, especially farmers, members of the professions, artists, teachers, and white-collar workers. Try to entice small businessmen to fall into line. Put special attention upon the unemployed.

2. Educate the youth to organize. They are the most important part of a revolutionary movement. They provide the fervor, faith, energy, and self-sacrifice. They are economically maladjusted. They are dissatisfied. They are looking for leadership.

3. For workers in unions and for the youth build an educational program to develop dissatisfaction, class consciousness, radicalism, and the revolutionary mentality. Undermine confidence in present leadership. Form opposition blocs within present unions and associations. Attack war, race prejudice, wealth, and machinery for settling labor disputes. Fight educational retrenchment, suppression of radical ideas, racial discrimination, and militarism. Encourage participation in strikes, picketing, and movements against war and Fascism.

4. Make particular efforts to educate the intellectuals. Capture the teachers, doctors, engineers, reporters, writers, and artists. They mould the minds of the masses. Through them all ideas reach the people. Work on their associations, and destroy their confidence in their leaders, their fellows, and their prospects in the present social order. Make them radical and revolutionary minded.

5. Camouflage all this in the words, slogans, and ideas that any people has in its own history. England has had equalitarian movements, John Ball, the Levellers, and the reformers of the nineteenth century. France has had

several revolutions. Make the approach simple, logical, and intelligible to educated and uneducated alike.[4]

The last point, Number 5, stressing patriotic camouflage, explains the cessation of public opposition to religion and the vociferous advocacy of Democracy, which the Communists adopted last spring under orders, I was told, of Moscow. This represents a new stage in the Communist drive for world conquest.

This prescription for education in a democracy is a program to destroy democratic government in order to bring that kind of equality which Communists consider necessary to economic Democracy. Its aims are to create dissatisfaction with the present order, class consciousness, radicalization, and revolution. It is not a program for the schools. In France, the school curriculum is fixed. The examinations are so severe and so important that teachers are completely occupied. In England, the schools are controlled by parents and local leaders. A teacher preaching Communism would be thrown out by the teachers themselves. Hence the Communists center their attention upon pamphleteering, soapbox oratory, and adult education. They work by personal contacts. They seek to make converts.

But there are others in Great Britain and France who wish to move from what they think is Plutocracy to Democracy. They despise the Marxists and their ideas. They believe in the methods of Democracy. They are confident that such a change can be accomplished in a democratic manner. These are the Socialists in France, the Labor Party in England, the democratic equalitarians who vastly outnumber the Communists.

—Educational Program of Socialists

Major Attlee says: "I want my revolution, but I want a peaceful revolution. I do not want the kind of revolution that really destroys its own children and its own supporters."[5] A revolution that is "peaceful" can come only when people have experienced a revolution in their ideas; and if economic power is to be transferred from the few to the many by peaceful means, then it must be done by the votes of the majority.

[4] This statement of the Communist conception of the function of education in the modern democratic state is compiled, not from opponents of Communism, but from the statements of Communists themselves.

[5] Attlee, *op. cit.*, p. 122.

Thus to the Socialist, the democratic equalitarian, the function of education for Democracy has two aspects. For *political* Democracy he goes with the liberal. He wants the citizen so educated that he will support government by reason, discussion, and popular consent. So far as *economic* Democracy is concerned, he believes that the function of education is not to support the present order, but to build a new one. Its aim is to make a change in the majority of minds. In part, this can be effected by general propaganda; in part, by adult education. It is also directly a problem for the colleges and schools. This educational program stresses equality. It emphasizes injustice, misery, and poverty. It aims to effect a wider sharing of the good things of life. Not all go so far as Major Attlee in projecting complete economic equality. The school and the teacher must take up these ideas and apply them concretely in their local setting. Such a program of education seeks to change the relationship of employer and employee, of owner and renter, of lender and borrower. It applies to housewife and servant and child. It is education for labor organization, for formation of cooperatives, for economic planning, for stimulation of groups for "social action." Despite the fact that this is announced as a program of gradualism, in the last analysis it is an attack upon wealth. In the long run it seeks to overthrow the system of private enterprise, to do away with capitalism, and to introduce a collectivistic society.

This group hates and fears the Communists. In England, it is the Labor Party that is most active in opposing and unmasking the Marxists. In France, until recently, there has been an armed truce. Nevertheless the two programs of education have a superficial resemblance. The main difference is that Marxists do not believe in political Democracy. The equalitarians do.

The teachers of the *Front Populaire* hold stirring meetings. There are addresses on Spain, solidarity of labor, and Democracy in administration. Fists are brandished high in air. Resolutions are passed on the forty-hour week, paid vacations, and war. They oppose military training and plans for mobilization. The National Union of Teachers in England, which despite its name is not affiliated with labor, has never been captured. In France, however, where the *Syndicat* of Elementary School Teachers is an integral part of the General Federation of Labor, a

majority last year were equalitarians. This year the equalitarians have lost ground.

Neither in England nor in France have the equalitarians a majority of popular support. Included in the opposition are the Mosleyites, the French Royalists, and other Fascist groups whose position we have not discussed because they have no belief in Democracy in any form whatsoever and wish to abolish it. But in the opposition there are many, certainly a majority of all the people, who share the *social* objectives of the equalitarians. With the hopes of the equalitarians many liberals are in accord. With their program they cannot agree.

The Liberal Opposes

Complete individualism the liberals do not advocate; but this does not mean that the system of private enterprise must go. Common ownership is a noble idea in theory, but where in practice have government functionaries proved able to operate business activities with economy and efficiency? A planned economy sounds well, but where, save under the most severe despotism, has such an ideal been realized? Better to take a slower, more deliberate, middle course, trusting to government regulation, consumer cooperation, and the effect of growing social idealism.

Furthermore, many of the liberals who know history have watched the course of previous attempts to attain Utopia. Over and over again, the equalitarians have advanced their ideas, the same theories have been preached, dissatisfaction has led to action, with the result not greater equality, but precisely the reverse—more misery, more poverty, more distress. Major Attlee himself admits his worry on this score: "You may say, if you like—some people do say—that this is a silly optimism. People will tell me that all history is against me. It is generally the history of other countries. I do not believe that there is a kind of sealed pattern laid down somewhere which all countries must follow."[6]

Nevertheless there are many historians who do see something of a "sealed pattern" to history.[7] Careful study of the great revolutions of history shows Utopia preached, hopes aroused, action following idea, and general disappointment, if not reaction, the result. Gaston Jèze has said recently, "Communism can destroy capitalism; but it cannot replace

[6] Attlee, *op. cit.*, p. 122.

[7] Brinton, Crane. *The Anatomy of Revolution*, p. 300. Norton, New York, 1938.

it." It is perhaps more correct to say that the experience of history shows that Utopists can attack and destroy the system of private enterprise, but they cannot replace it with any system which can be operated in a democracy. The problem of how to limit freedom in the economic realm and at the same time preserve it in the political realm has never been solved by revolution. The French Revolution of 1848 is particularly interesting because in its early stages it parallels so closely the situation of the present.

—The French Revolution of 1848

The period prior to the Revolution of 1848 was a time of great industrial unrest in France. Despite certain notable exceptions, wages were low, hours long, and conditions of work miserable. Sixty thousand carpenters went on strike in 1822. It took an army corps to put down the demonstrations of 100,000 workers in Paris in 1840. There was a three months' strike of the building trades in Paris in 1845. All this was organized by a hierarchy of labor associations, with a paid secretary, Vincent by name, the Jouhaux or John L. Lewis of his day.

—The Ideas behind the Revolution

Philosophers, political scientists, and sociologists, partly professors, partly laymen, were moved by this distress. They could not but contrast the misery of the time with the hopes of liberty, equality, and fraternity. One group preached a revival of primitive Christianity, a return to the ancient morals, the imitation of Christ, and the voluntary renunciation of wealth. There was an enthusiasm that was almost religious. "What is socialism?" was asked. "The evangelist in action," was the answer. They thought that they could transform society and secure happiness and good fortune for all. "Property—it is theft" was one slogan. "The first place in industry today," said Proudhon, "is reserved for the machine. The second, to men." Louis Blanc preached collectivism. He published a simple little book which was easily comprehended and eagerly and widely read. He advocated that all industry be run by the government, that management be elected by popular vote, and that all receive the same pay. For the profit motive he suggested substituting what he termed "collective honor." The Boulevard Raspail in Paris is named in honor of a great physician who at that time practically preached Communism.

The great figure of the time was the famous poet Lamartine, a generous soul, a true humanitarian, who loved his fellow men and wished them well, a man with pure intentions, a powerful orator, and a great leader.

"It was," said Bertaut, "an astonishing mixture of realities and dreams, of sincere aspirations and hidden ambitions, of revolutionary frenzy and French good sense,—this legion of Utopists who filled the reign of Louis Philippe." [8]

Many of these men were superior and distinguished; but charlatans and fakirs followed in their wake. There were cranks, phrenologists, and quacks, who passed out pamphlets, stood at the doors of public meetings, handed out dodgers, and harangued in the streets. One had a new religion which he called Eveadism, after Adam and Eve with a new god called Mapah, after Mamma and Papa.

These ideas, written and spoken, whirled on every hand. Conservatives laughed, scoffed, and condemned them as unworthy of notice. Nevertheless propaganda began to have its effect. Students fell in line. Secret societies, hundreds of them, were formed. There was a *Society for the Defense of the Liberty of the Press*, one called *The Friends of the People*, another *The Society of Political Prisoners*, and the like. Some had initiation ceremonies based upon Masonic rites. "What are the passwords?" was asked the initiate. "Tiger, cancer, gangrene, scaffold," was the answer. "This is a war between the rich and the poor," said Blanqui. "The rich have wished it because they are aggressors, the privileged living richly on the bread of the poor." "What are the aristocrats?" was asked. "The aristocracy of birth was destroyed in July, 1830. Now the aristocrats are the rich who form an aristocracy just as greedy as the first."

The doctrine of the Utopists was simple. It was a campaign to abolish capitalism, to establish a worker's republic, to transform the social economy, to proclaim the international solidarity of all peoples, thus bringing international peace. The leaders were sincerely confident that they could reform France and set an example for all humanity.

If you study this interesting period, you will note that the Revolution was easily and quickly accomplished, practically without bloodshed.

[8] Jules Bertaut. *1848 et la Seconde Republique*, p. 19. Paris, 1937.

Turpitude in high office and a financial crisis gave a militant minority its chance. The most powerful propagandists became the first leaders of the government. They picked up the power cravenly cast down by the fleeing court. Men with good ideas and noble purposes did their best, but there were also little men. As one writer of the time put it, "The crowd always sides with mediocre men who speak in redundant phrases, with vibrant voices, with trivial yet powerful language." Idea checkmated idea. There was almost a brain trust. A modest professor of rural economics, Emile Thomas, was put in charge of all public works, and he employed 97,000 workers on state projects. But the finances were impossible. The treasury went to pieces. There were intrigues, revolts, and counter-revolts. On the 24th of February, 1848, Louis Philippe fled. On the 10th of December, the names of six candidates for the presidency were before the people of France—five who promised some form of social justice; and a sixth, a resident of England who spoke French with a German accent, whose platform was, "I am not one to dream of empire or war any more than I believe in the application of subversive theories. Reared in a free country, I shall always rest faithful to the duties imposed upon me by your votes and by the will of the Assembly. If named President, no sacrifice would be too great to defend a society so audaciously menaced. I should devote myself exclusively, without any mental reservation, to the strengthening of a stable Republic." Louis Napoleon, forty years of age, nephew of Napoleon Bonaparte, received 5,434,226 votes, to 1,448,107 for the next highest, while Lamartine, the leader of the Revolution, got only 17,910.

—The Revolution in Action and Reaction

Back came the noblesse; back came the rich; out the window went the theories; law and order gradually emerged; and the people heaved a sigh of relief. Four years later, Louis Napoleon discharged the Assembly, took the government, made himself Emperor Napoleon III, and assumed full and despotic control.

This is the pattern of history that seems to be "sealed." This is one of the reasons why the glittering dream of the Utopists leaves the liberal cold. Never were a people so betrayed as were the French in 1848. They sought to overthrow a constitutional monarchy. They achieved absolutism. They sought peace. They achieved war. They sought social justice. What they achieved was quite the reverse.

Thus the liberal, the opponent of the extreme equalitarian, believes that one function of education in a Democracy should certainly be to give to all the people, plainly and simply and in the clearest manner possible, the history of how nations rise and fall. They should come to know how weakness, vice, and luxury will sap the strength so that invaders may storm their way *in;* but they should also come to know how Utopists playing partly upon unnecessary distress and partly upon stimulated envy, can so arouse a people that enemies within can storm their way *up*, and tyranny and increased oppression become the result. However much the equalitarians may state that they want no revolution; however much they may hope to achieve their ends by democratic means; however much they advocate ballots as opposed to bullets—history shows the danger of the movement they start. For the French were not advocating revolution before 1789, but they soon found that they were living in one. If you want bullets, says the experience of man, inflame prejudice, arouse envy, and pit group against group. Make easy, rosy promises for a future where all men will be equal in every way, keep the pot boiling, and it will not be long until brother will kill brother.

Utopism and Violence

## THREE SOCIAL PHILOSOPHIES

Thus in England and France there are three philosophies on the relation of education to Democracy. The liberals, the great majority, believe that present government and life, admittedly imperfect, are best in the long run, yielding better compromises between the ideals of liberty, equality, fraternity, and prosperity than dictatorship or any other primitive plan. Education should form the citizen to support present conditions and improve them gradually. This philosophy is attacked by those who believe that we now have no Democracy, or only a very imperfect form of it, and that education should therefore be a force to attain a different condition. This group is divided into two: the Communists, who believe that political and economic Democracy are mutually exclusive and prefer to have economic equality even if it takes a revolution to get it and tyranny to maintain it; and the socialists or equalitarians, who believe that economic Democracy can be attained and maintained by democratic means.

There is no compromise possible with Communists. They are the definite, implacable enemies of Democracy. Communism and Fascism might go hand in hand. Communism and Democracy never!

### WHY THIS RIFT IN EUROPE

But if we exclude the Communists, one wonders why there may not be some common ground upon which the democratic equalitarians and their more conservative liberal opponents might meet. The leadership on both sides is of high quality. Herriot and Leon Blum, Sir Walter Citrine, and H. A. Morrison are able and well-educated men. Nevertheless the most powerful arguments from the left fail to convince the right. The most dire warnings from the right fail to deter the left. The left seek to remedy the causes of war and recurring economic depressions. They deplore the concentration of wealth. They would remedy abuse and exploitation. The right admit these evils, but suggest the modification and regulation of capitalism, not its abolishment. They fear that the blandishments of the Utopists will destroy Democracy. They seek a workable plan for social reconstruction which will not destroy what we have. Are these views irreconcilable?

### WHY THE RIFT IN AMERICAN EDUCATION

This possibility of reconciliation is of highest importance to American education. In the United States we have the same division of opinion as to the purpose and program of education for Democracy that is found in England and France. "Liberalism" and "radicalism" among professors and teachers is not to be explained primarily by a policy of academic freedom and encouragement of differing philosophies and points of view. Rather it is a reflection of the ideas prevalent in the world outside. Among American educators we have the overwhelming majority holding to the liberal philosophy. Here we have a small minority leaning to the left, with very few who even approach the views of the extreme equalitarians in the British Labor Party. Just as on the European scene, these radicals are not stupid men. They are not poorly educated. Sometimes the more they learn, the deeper go their researches, the more radical do they become. Each side agrees as to broad social ideas. Each believes in Democracy. Each has leadership of a high quality. Why then should

there be a struggle to the death? Is there no common ground? Is there no basis for reconciliation or compromise? Is there no possibility of a higher synthesis?

### POSSIBILITY OF A COMMON GROUND

It was well understood by the classical political economists that particular forms of government, seemingly so stable, were neither permanent nor fixed. Viewed from the short years of one man's life, democracies or dictatorships might seem lasting; but seen in the perspective of history, these types of government were transitory. The Greeks believed that governments changed according to a pattern. Democracy was considered to be one fragile stage in a process of degeneration from Plutocracy to dictatorship. It grew out of Plutocracy when the oppressed poor in desperation rose against the rich. It in turn yielded to tyranny or dictatorship when the ignorant mass of the people surrendered their power to a leader risen from among their ranks. Plato and Aristotle saw change in government as degeneration in a single direction.

But Montesquieu, whose ideas had so important an effect in the formation of our own constitution, added a different idea. With the belief that governments were transitory and likely to change he agreed. He was in full accord with the notion that democracies and dictatorships are unstable. But he saw a change possible, not in one direction, but in two. Studying the history of the city of Syracuse, he noted that the citizens constantly alternated between "choosing a tyrant to govern them" and "acting the tyrant themselves." He concluded that "Democracy has two excesses to avoid: the spirit of inequality which leads to aristocracy or monarchy, and the spirit of extreme equality which leads to despotic power as the latter is completed by conquest."

Montesquieu dismissed this idea in less than three pages. It is a pity that he did not develop it. At the time when he wrote, 1748, Democracy was considered of slight importance. It was a form of government suitable for a city or for a district of limited area. But the idea applies to Democracy wherever found, regardless of size. It yields the clue for the reconciliation of the theories of the liberal and the democratic equalitarian.

For if we accept the Greek theory that Democracy is a stage of gov-

ernment somewhere between oligarchy on the one hand and tyranny on the other, and add to this the idea that change can occur in either direction, Democracy being impelled toward Plutocracy by extreme inequality, toward dictatorship by extreme equality, *then Democracy is not absolute. It is relative. It is a mean between extremes.* It is not a fixed state. It is not static. It is constantly in motion, responsive to any change that may occur in any aspect of life. At one time it may be moving toward the center; at another, toward one of the extremes. If it moves too far, there is danger of downfall or reaction.

Democracy—a Mean between Extremes

This idea of Democracy as a mean between extremes gives us the basis for a clearer understanding of the conflict between the radicals and the liberals. In this light we see that certain sociologists, philosophers, and social workers—and following them certain politicians—in England, France, and the United States see social injustice in present conditions. They see an increase of luxury and a concentration of wealth. They see an increase of poverty and distress. They cite the statistics on the distribution of income. They study unemployment and government relief. These trends they consider those tendencies toward extreme inequality which will destroy Democracy. So, to save Democracy as they view it, they wish to see the good things of life divided more equally. They advocate worker organization, collective ownership, and government operation of certain basic industries. They support public ownership of natural resources, high taxation upon income and inheritance, and the development of cooperatives. All these measures they urge to correct extreme inequality.

—Position of Socialists

Then there are other sociologists and philosophers, less balanced, less practical, generally foreign to the democratic tradition, who are in despair. They are in a hurry. They wish to go to the extreme. They advocate immediate nationalization of industry, elimination of capitalism, and abolishment of the profit motive and the system of private enterprise. Like Major Attlee they advocate complete equality.

—Position of Extremists

And this, say the liberals, will bring that extreme equality which will also destroy Democracy. For the advocates of such a system, if they gain the power, will find that their ideas can be put into practice only

by the most despotic measures. If they win, Democracy will die. If they lose, as is more likely, because their efforts serve only to arouse the opposition, then to power will come a Fascist leader, perhaps with a peculiar delusion like social credit, "Every Man a King," or "Thirty Dollars Every Thursday." Either way dictatorship emerges. Either way Democracy is dead.

Some may consider that the liberal is over-apprehensive. American society seems steady. The Capitol at Washington looks as though nothing could shake it. But the student of history learns never to underestimate the power of a small militant minority consecrated to a cause with religious fervor. The Communist Party enrolled less than one hundred thousand Russians in 1917. Hitler started his struggle around a beer table in Munich. In 1930, at the time when the late Dr. Becker, Prussian Minister of Education, gave the Sachs Lectures at Teachers College, he stated that the influence of the Nazis was so slight as to be without significance. It has been well said, "They don't take plebiscites *before* revolutions." [9]

—Position of the Liberal

Not only does the liberal fear the extremist; he opposes the milder socialistic program. He does not believe that the measures advocated by the democratic equalitarian will reach the proper mean between the extremes. By grading the top down, the most capable and hardest working would receive the same as those of least capacity and industry. This, the liberal contends, would destroy the incentive for production of wealth on which the standard of living of all depends. He believes that rewards of industry and ability encourage all to try their utmost and thus grade up the whole population.

The liberal is not sure how to interpret the statistics on distribution of wealth. He admits that this is a question requiring study and research as to whether a large part of the population has sufficient hope of reward to keep all trying to improve their status under present conditions. He admits that the concentration of wealth in the United States may be too great.

He points to the fact, however, that the highest average standard of living in the world was in the United States in 1929, and that a larger

[9] Brinton, *op. cit.*, p. 289.

part of the population than ever before was then gainfully employed. Since that time, under equalitarian tactics, much wealth has been destroyed and much money distributed without improving the situation. The equalitarian contends that the failure of the last six years is due to evils of the time previous, and further distribution should be made. The liberal believes, on the contrary, that the methods of distribution have destroyed not only wealth, but the incentive to create it.

This conflict between the radicals and liberals is then no simple issue. The radical, afraid of the dangers of extreme inequality, wishes to start a movement toward equality. The liberal, afraid of the dangers of complete or extreme equality, wishes to work the other way. Each knows more clearly what he does not want than what he does. This is a universal characteristic of Democracy. The truth of the matter is that the causes of equality and inequality are so varied, so complex, and so constantly in flux that no person or group of persons today can be said to be able to give a complete answer.

Equality—a Complex Problem

To make this point clear, let us consider Democracy not only as a mean between extremes, but as a balance, an inverted pendulum which can lean toward equality on the left or toward inequality on the right. It can lean at any angle. If it leans too far, it will either topple and fall, or it may rebound suddenly far to the other extreme. It is not a balance in a vacuum. It is a balance held by powerful forces pushing from either side, forces which, working against each other, determine the angle of the balance.

Democracy—a Balance

There are many forces which bear upon the democratic balance, and a change in the power of any one of these forces will disturb the balance. Among these social changes we can suggest the following so far as the United States is concerned: the former unlimited land and opportunity in the West, and the present closed frontier; the former stable population, and the present mobile population, with particular reference to the northward migration of Negroes and Puerto Ricans and the rush to the cities; the former use of gold and specie in the payment of obligations, and the present great utilization of credit; the former importance of religious institutions and their present decline in effectiveness, and a growing materialism; the former freeholder and independent owner,

and the increase of renters and share-croppers; the development of technology; tariffs and the diminution of world trade; armaments and prospects of war; the invention and development of radio; the concentration of power in government; and the development of adult education, libraries, museums, and a universal system of common schools.

It is from a study of these social forces which bear upon the democratic balance that we can at length discover the relation of equality and inequality and the mean. Liberals and radicals are mostly concerned about our approach to one extreme or the other. Not one person or group of persons in the world today sees the picture as a whole, nor have any persons fully analyzed the effects of the complexity of pressures which make America what it is.

## THE PROBLEM

Democracy must preserve itself. How is this to be done? If you wish to preserve the health of an individual, you must study the dangers and diseases to which he is subject, and then map a program to avoid the ones and prevent and cure the others. We have been searching for the dangers and diseases of Democracy. These we find in extreme inequality and in extreme equality. Democracy is a balance. Pressures from either side cause the balance to lean. It must not lean too far. Hence we must modify existing pressures or oppose them with others. Some of the most powerful forces are probably beyond our control, such as the closed frontier and technology. Others we can use as we desire, such as the radio or legislation. Highly important among these man-controlled forces is education; and it should constantly operate to keep the balance. In its fundamental sense, this is education for Democracy.

If this is education for Democracy, then the basis for the program to form the citizen is now clear. Democracy has both a political and an economic aspect. As to political Democracy, there is little disagreement. The youth should come to understand it, to practice it, and to defend it. The youth should know what Democracy is, and how it came to be. He should appreciate the evils against which it was a protest, and how easy it is for despotism to return. He should share the searchings of heart and mind of the Fathers who devised democratic government;

Education for Political Democracy

and he should come to understand and be grateful for the sacrifices that were made that he might have these privileges.

He should come not only to know, but to practice and make part of his life, that action by the citizen needed to make political Democracy work. He should learn the operation of government, federal, state, and local, and the rights and, more importantly, the duties of the good citizen. These should be taught not that the future citizen will know them only theoretically; they must be so powerfully taught that action will ensue. This will require more than the classroom and the school. It will demand education as broad as life itself.

Furthermore, the American youth must be defenders of Democracy. It is said that a little learning is a dangerous thing. All learning is dangerous, because it is difficult to control. Propagandists think more of the speedometer than of the brakes; yet it is at the brakes that we must center some attention. It does not require genius to find fault with the present social order. It takes little imagination to picture a better world. The problem is to find the right method to achieve it without ruining what we already have. Therefore, American children should be on guard against sudden change. They should come to know how nations, well defended by brave warriors, fall before the demagog who would divide up the public funds. They should learn the economic failures of national planning. When Communism is preached, when workers are urged to revolt, when dodgers are handed out in the street, they should think of the history of the past. Part of the education of the American youth should make them hold fast. There are times when the citizen should say "Stop."

There is little controversy over the principles of education for political Democracy. It is in the area of economic Democracy that the unsettled problems lie. There are times when the citizen must say "Go." In a changing world he cannot stand still. New times demand new ways. Novel questions call for novel answers. The new citizen in a new democracy cannot be a static cog in a fixed machine. He must be a freeman, free to live a free life in a changing world. He must be geared to change, change which must be accomplished within the democratic framework in the American manner. Such a change, according to our

**Education for Economic Democracy**

analysis, can come only from a modification of pressures now bearing upon the democratic balance, or by the conscious application of new pressures, which means in part a new form of education for the citizen. To determine the objectives and the educational procedures we must have scholarship. Minds must meet. Hotheaded propaganda, careless collection of facts, name calling, prejudice and innuendo, hurled from either side, travel on separate planes and never meet. Minds meet when there is calm, fair, reasoned study of all the facts, patiently and wisely applied. This is scholarship, and it is to scholarship that Democracy must trust its fate and its progress.

## ROLE OF SCHOLARS

Two hundred years ago, Denis Diderot gathered about him a little group of brilliant scholars to prepare an encyclopedia. These men compiled the facts, deduced their meaning, and suggested their applications. They published a ten-foot shelf; but they did more. They redesigned the world. Today we need to redesign Democracy; and we need many groups of scholars to perform this task. We need scholars, patient, fearless, wise, alike in competence, but differing in their specialties and points of view. We need scholars who will be sensitive to all the problems of our life. Not all scholars are professors any more than all professors are scholars. Diderot's encyclopedists included a writer, a doctor, a music teacher, a farmer, a mathematician, a treasury official, and a banker. So our groups of scholars should include representatives of many occupations. They should study our life in all its aspects, assembling what is known and discovering what is not known. Their goal should be the determination of the angle of the balance of American Democracy. They should estimate the task of restoring that balance, and how it may best be done. What are the forces that disturb the balance? What is the source of their strength? If these forces are beyond our control, how may they be balanced by other forces that are within our control?

Education is but one of the forces that man can control; and the school is but one of the many agencies of education. So, to determine the role of education, it is necessary first to determine those functions that can better be performed by government, private enterprise, and voluntary associations. Similarly, to plan the part to be played by the

school, the task to be performed by the family, church, club, theater, press, and radio needs prior consideration. Thus a thorough study of the preservation of Democracy, even though its main emphasis is education and the school, must consider society as a whole and include, in a preliminary way at least, all the social agencies which man employs.

We need answers to such questions as: What should be the role of government, federal, state, or local? What part should be played by private enterprise and voluntary associations? What should be the task of education in general? What should be the particular educational tasks of adult education, CCC camps, Boy Scouts, universities, colleges, and schools?

### ROLE OF EDUCATORS

Since education is the most flexible and powerful force which man controls, it is important that scholars who know the schools and are specialists in education should be near the center of our groups of scholars. But scholars in education cannot work alone. Education, in simplest terms, can be considered as divided into three parts: the raw material, the product, and the process. The raw material is the child, the pupil, the student; and scholars in education understand him, how he learns, how his mind works. The product is the embodiment of the purposes of education. When purposes are generally agreed upon and accepted, the educator, knowing the raw material, is able to devise the proper processes. Educators know how to map the program for the school. They can modify the curriculum. They can re-train the teachers. They can convince school boards of the wisdom of proposed changes. When there is general agreement as to what should be done, they can work by themselves. But in determining the balance of American Democracy and in mapping a plan for the restoration of that balance by education, we are in the realm of setting new purposes and determining new objectives. Here the educators must receive help from beyond their ranks.

### ROLE OF LAYMEN

Hence it is most important that each group of scholars, in addition to including laymen in its membership, should so organize its work as

to receive the intimate cooperation and personal assistance of many representatives of the lay public. Democracy means rule by the people. The people must decide. A group of school officials, or a teachers union, or a council of professors, unadvised, unchecked, unaided, might chart a satisfactory educational course for Japan or Soviet Russia. No army general staff could plan the educational campaign for Democracy. This could only come from the people. It may come, as it has so frequently in the past, from the action of pressure groups, or the hasty reactions of irate parents, patrons, or taxpayers. Far better it would be to have educational planning come in that understanding and sympathy that results from working and thinking together.

Forces of education and the lay public must work together, not only in planning education for Democracy, but in carrying it into practice. Education was once the concern of the parents, the preachers, and the people close to home. Of necessity it has become institutionalized and placed in the hands of experts employed to do the job. This has diminished the feeling of personal responsibility on the part of the public. In the dictatorships the parents have no voice in the education of their children. They are forbidden to enter the schools. No such condition should obtain in a democracy. American schools exist to do the will of the people. There should be no rift between the school and the public; rather there should be complete understanding and cooperation. For the defense of Democracy is not only a task of the school and teacher; it is the duty of every citizen of the United States.

### ROLE OF TEACHERS COLLEGE

Teachers College is preparing to do its part in this vast undertaking. The Advanced School of Education has projected a series of Research Institutes to assess the educational implications of the major forces disturbing the democratic balance. The cooperation of laymen will be assured by three developments. The plan of lay conferences and lay participation in student discussion groups will be organized formally and extended. We are proposing the creation of a national committee of educators to serve as a liaison agent with similar national committees to be appointed by inviting the cooperation of such representative lay organizations as the American Federation of Labor, the United States

Chamber of Commerce, the National Grange, the American Bankers Association, the National Association of Manufacturers, and the Federation of Women's Clubs. We have formed a small committee, named the *Lay Council,* composed of distinguished citizens who by reason of residence in New York City and great interest in the problem can act as a unit advisory to the Dean to assure that wisdom, impartiality, sense of public obligation, and scholarship upon which the success of the entire program of lay cooperation must depend.

The democracies of the world are under attack. Externally they are face to face with dictatorship. Within their ranks they confront "isms" of every kind. In some countries the balance between equality and inequality, slowly yielding to the pressure of powerful social forces, has gone so far as to topple and fall. In others it is aslant. Balance can be restored, not by passionate propaganda and loose talk, but by the slow application of man-controlled forces, most important of which is education. Education can be guided only by scholarship; and it is to scholarship that democracies must trust their fate. The task of Teachers College is clear. If our students will learn to be scholars; if our professors will continue to be scholars; if our lay associates will act only upon the results of scholarship; if our administration, Lay Council, and Trustees foster scholarship—then Teachers College will have done its part. Only by a wide extension of this method can America plan a program of education for citizenship which will check Communism, avoid dictatorship, and save that form of government and way of life, willed to us by the Fathers, which we would all protect and advance.

# Aesthetic Experience and Growth in Life and Education*

By LESTER DIX

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IN TWO conferences of art educators which I have attended during the past winter, I listened to gently stated, but persistent, complaints that it is hard for art educators to do anything with administrators. I am thoroughly convinced that the complaints are entirely justified. Certainly there is sufficient evidence that educational administrators have little faith in the arts, when, all over the country, under pressure, we find the arts the favorite sacrifice to the need for economy.

As an administrator, who is trying to be intelligent about the total process of education, what may I say about the art educator, who is working with strong faith that what he is trying to do is of the utmost importance in that total process?

In broad terms, the basic aims of education as I see them can be simply stated. They are (1) to develop, and (2) to socialize.

## THE SOCIAL BASIS OF EDUCATION

In recent years we have heard much concerning the social basis of education. It is perfectly clear that every society must, for its own preservation, set up educational institutions for inducting the young into the cultural pattern. If society is to hang together, the cultural group must continuously pass on its modes of living from generation to generation. On the other hand, the young individual growing up in the culture must become naturalized in his social environment as necessarily as he must learn to live in the natural setting. It is useless to argue which service of the schools is more important, that to the individual or that

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to society. The two purposes must be integrated at every point. The individual cannot escape the demands made upon him by the social group, nor can society escape the fact that it is made up of individuals. If the social pattern does not serve the needs of those individuals, it will inevitably be broken up and changed. And if the individual does not conform reasonably well to social custom and law, the group will cast him out or destroy him. Therefore the schools must serve at least these two broad purposes.

The child comes to us for help in developing himself fully as a person—all his potentialities, physical, emotional, intellectual, must be realized, expanded, implemented, and refined. And we as teachers know that if we fail him to any extent in this process, to that extent we frustrate him, prevent him from reaching his full stature, and thus rob society by so much of his possible contribution to group life. Throughout this process of self-development, however, the youth must deal with the culture, which, because of its history and particular organization, impinges upon him very arbitrarily with respect to many of his native capacities as a normal young human creature. There are a number of things, many of them in themselves fine, that he could be and do which the culture will very effectively prevent. At the same time, of course, it will be preventing him from becoming and doing many useless and harmful things. And because social organization has grown up in response to human needs, it will provide him with many opportunities for self-development which he could not in isolation have. Thus the growing individual will be both hindered and helped by his culture.

In the actual nature of the functions themselves, there is no contrast and no issue between developing and socializing. One develops by acting in a social scene. Given healthy human beings and a sound society, these two processes would go on in complete integration, the one contributing to the other at all points, and the end of such a process would be an individual who had mastered his culture and himself and found a style of living possible in his culture and appropriate to his own temperament. He would be a socialized individual because he would have grown by means of his own preferred actions in the social scene. He would be in harmony with his culture, but able to criticize and to vary from it to some degree, as well as to appreciate and enjoy what it provided. At the

same time, his culture would be strengthened by the contributions from the play of his own free energy, expended in ways chosen by himself. By reason of defects, mainly in the culture—for our infants are still born amazingly healthy—*we are very far from any such ideal stage of life and education.*

## EDUCATION AND LEARNING

We have always thought of education and learning as synonymous. The modern ideal of education and learning is that it is to be insofar as possible, synonymous with life, behavior, and growth. This conception has come from recent advances in biology which make it clear that the process of life is nothing but a process of growth by means of behavior. Life is a dynamic process resulting from the flow of original energy proceeding from the sun. This energy is at all times transformed, not only in the living organism, but in the environment. The significant fact for us is that the living organism has developed means of controlling to some extent the flow of energy. By a long process of evolution our bodies have become highly complex machines for receiving, storing, organizing, and releasing basic energy from the environment in ways primarily designed to preserve life and unity in us. Nature appears not to be interested in any of our "higher" and fancier purposes, aims, and needs. These we have developed during our evolution into human and social animals. Basically, nature says to us: "Hang together or you die. Don't take in more energy than you can use; don't give off more than you can spare. Spend it in some ways and you thrive; in others, and you perish." This is the primitive concept of integration.

The tendency, however, for energy to flow in all directions results in constant differentiation. The organism is continually experimenting with new behavior, growing new appendages, altering its shape and capacities, getting new ideas, and demanding new satisfactions. If these variations from the central pattern become too extreme, the organism cannot sustain them. The dinosaur that becomes too heavy and too cumbersome becomes extinct. The child's growth must be a process of differentiation. His infantile mumbles, crows, and chirps must be elaborated into more or less precise enunciation of from 500 to 33,000 words, depending on whether he is an all-day hanger-out

on Broadway or a Bard of Avon. His kicks and squirms must become ultimately handwriting, table techniques, ballroom dancing, gearshifting, steeple climbing, or what you will. Throughout the process of his life and growth, he must achieve new tricks, new ideas, new sense perceptions, and new imaginative enterprises. But throughout all this time these new ways of behaving must somehow hang together in some degree of unity, some organized pattern which means to the individual "myself." If he becomes too specialized in any development, corresponding weaknesses will emerge. If too much energy goes into rowing or sprinting, he may die of athlete's heart at an early age. If his ideas vary too far for the popular social notions, he may be imprisoned as a Communist or a Fascist. If his techniques for getting along in the world become too peculiar, his growth will be restrained on the ground of its criminality. Thus each of us lives, grows, and learns between the two ultimate limits of free differentiation and a required controlling pattern of integration.

But it is of the utmost importance to note that life moves ahead to new achievements by means of an emphasis upon *differentiation and the novel response.* No evolution would have taken place if primitive organisms had not learned new ways of behaving. The rooted plant or the oyster in its shell must take what the environment brings it. The first animal whose new equipment included legs could go in search of a better environment for the promotion of its growth. The human animal, by developing engineering skills, became able to keep himself warm in a cold environment, and now even cool in a hot one; to produce new and more nutritious foods; to fight with some success the animal, insect, and bacterial worlds; and he is now at a point where the extraordinary elaboration and complexity of his tools of living threaten his very existence. His ability to elaborate new tools, new habits, new industries, and new ideas has torn apart many old patterns of integration which formerly made life hang together for him. *The basic problem of civilization today, if it is to survive, is to evolve new integrating syntheses.* To achieve stability, we may go either backward or forward. We achieve new patterns or we must regress to old ones. In Europe, on a widespread front, we see regression on the part of populations for whom the machinery of economic sustenance had been so far destroyed by war that they have been willing to embrace any promise of security and integra-

tion that came along. But even in these regressive social patterns there may be observed many items of new and progressive achievements. Thus, Germany builds the most advanced system of highways in the world, and within the regressive pattern of war armament, new military and engineering techniques emerge. New measures for social security came out of England's most desperate time. And in our own country, we are slowly beginning to realize that we must evolve new patterns of social integration if we are to live with our new industrial techniques and ideas of human value.

The point is that as life moves ahead, which it cannot escape doing, old integrating patterns cannot survive intact. *Integration must be new, or it fails entirely.* Thus we preserve our security by gaining control of the new variation in our lives, not by trying to hold on to the old. Therefore, *if life is to go on at all, it must go on being a process of growth—new learning and new achievements.* History is cluttered with the remains of civilizations which failed to observe this natural law. To bring the lesson more sharply home, an older generation of educators, not to mention physicians, lawyers, politicians, and financiers, find themselves faced with the very trying problem of achieving integration on new ground, or waking up ultimately in the same limbo as these past and gone civilizations.

Thus the issue of development versus social conformity becomes merely a particular part of the total organic problem of differentiation versus integration. And there is but one ultimate solution. We must integrate *as* we differentiate. We must stay alive in order to grow, and equally, we must grow in order to stay alive.

All this discussion is for the purpose of making perfectly clear that the orientation of education in our time and in the future must be in the direction of new adventures, new sensitivities, new experiments in life and learning—of expansion of experience rather than restriction, and toward the preservation of integration throughout these adventures, and the achievement of new stability by dealing competently with the new rather than by avoiding it. We must offer every individual not only an unimpeded process of growth, but growth at all times stimulated to deal as richly as possible with all experience. We must constantly open doors, and when we close any, do so temporarily or for the sake of opening a

more promising door. *Insofar as we can manage it, the whole world of experience, with all of its significance, must lie open before the learner, while we stand by to help him equip himself with the tools, the ideas, the judgments, and the attitudes which he must have in dealing with his experience.* As I hope will later become clear, I for one count very heavily upon the art educator in the building of the kind of education I have been discussing.

## ART AS EDUCATION

In describing in this sketchy and highly unsatisfactory fashion my conviction of an unescapably necessary design for living and for education, I have been at the same time describing what some of you must have recognized as a pattern applicable to the experience of sound art. For sound art is embedded at all points in the core of living, and can become meaningful only in terms of what is meaningful in life. That high-sounding statement, I hope, will become somewhat more explicit as I go along. If art is rooted healthfully in the living activities of men, and if education is equally so rooted, there is some justification at least for my belief that education at its best and art at its best would very nearly coincide at all points. It is not enough to say that education is an art and that art is an education. We must also say that *art education is not good education if it is not good art.* And, equally, *art is not good art unless it is good education.*

At this point, if you do not protest, you will be the first audience of people with aesthetic interest which did not contain some "aesthetes" to rise in wrath and speak eloquently for art for art's sake. But I am willing to make the point, if only for the sake of possible later controversy, that *art which has no significance except for its producer is just not art.* It is just a technical exercise. And, similarly, an art product which has not carried the producer beyond its own limits and does not carry the appreciator beyond itself in imagination ends as a futility. The artist who does not take us on to new ground fails to perform his function. Equally, I should say, if he leaves us confused and incoherent, he has not fully done his job. Interpretation is not mere disturbance. We must require that the artist make experience *more* manageable for us, not less so. And equally, we must require of art activity for the learner that it make *his*

experience more manageable. Thus *art education must do all that any education does—enrich experience and better organize it.* Else I am willing to say, if provocatively, it is neither good art nor good education.

### THE ASETHETIC EXPERIENCE

The suggestion of controversy just made brings us to the question of an aesthetic. That there are some essential aesthetic realities is attested by the fact of the very existence of a habit of mankind, a cultural institution, and a set of productive and appreciative activities, called art. At the same time, no two persons would find themselves in complete agreement as to just what constitutes such realities. No discussion is surer than one in aesthetics to develop controversy. What manner of aesthetic philosophy are we to accept?

Since the aesthetic is bedded deeply in human experience, there must be some verities which, for all practical purposes, may be called eternal. At the same time, as human experience grows and cultures emerge and evolve, art experience varies, changes, and grows also. New achievements constantly come into being and gain acceptance. Throughout the history of this vital process of art, those who carried on education, and particularly art education, have expended most of their energies, I regret to say, in what they regarded as the undeniable verities. But the trouble is that they have characteristically assumed that what they had faith in *at the time* was nothing other than the unalterable truth. In this they were quite unaware of any of the accidental pressures which had operated to create their particular faiths. Now, rapid changes in the life of the world and in our particular culture have made it impossible to maintain so naïve a faith in any unfailing "rightness." We now see that it is imperative that we give more attention to the specific relationships of a given complex of art activity to a given culture—in our case, our own. In order that we may understand one another, I shall make a few statements of my own aesthetic preferences, which you need not share, but which will serve to keep the discussion on a given track.

Much that I have said earlier could be summed up in two statements: first, *a sound art will always be healthily rooted in the earthy realities of organic existence;* and, second, *a sound art is always naturalized in the pattern of life in a society.*

There is no sharp line which can be drawn at any point between the most primitive and instinctive activities of mankind and the most refined manipulations and enjoyments of experience for its own sake. I have sometimes made in human behavior a slightly arbitrary division for purposes of discussion. I am inclined to throw into a category called "raw" behavior all of those behaviors of the organism which we used to call "instinctive"—all that are so habitual as to be performed unconsciously, as well as all those biological and relatively uncontrollable processes of digestion, gestation, and the like—things we do merely to stay alive and merely to get from one experience to another—as well as all reactions so emotionally compelling as to be somewhat beyond control. All behavior in which we "do not know what we are doing" falls into this group. On a second level, I think of what I call "prudential" or planful behavior. In this we are entirely conscious of what we are doing, but the purpose of the behavior is something beyond what is now being done—that is, they are planful activities to gain some future end. All contriving for later enjoyment, all economic—to the extent they are purely economic—activities fall into this category. This is essentially the housekeeping activity of mankind, and it is not an accident that the word economics comes from a Greek root signifying "housekeeping." The animals share all raw behavior with us, and, among the higher species at least, some rudiments of planful behavior. But somewhere in this middle ground, we leave them behind, as we move on to the aesthetic level, where the essential nature of the activity is that it is carried on for its own sake.

All planful behavior is conscious, but *aesthetic behavior is carried on for the sake of the kind of consciousness it provides. We are not interested so much in having the product as in the experience which the product or the process provides.* It is at this level that we experience distinctively human behavior for the first time. Anyone who observes life with any intentness knows that much of our economic activity provides important aesthetic experience. And there is always in aesthetic activity carried to any extent an element of deferred appreciation—times of drudgery, persistent labor planned to bring forth a future reward. Similarly, it is very difficult to draw the line between instinctive and conscious behavior. *The refinement and mounting complexity, from the most*

*primitive behavior recognizable, step by step up to the most complex and highly refined aesthetic behavior, is a continuous variation without any necessary break.* The aesthetic merely emerges as the cream of the whole process. It can, of course, be drawn off as cream and enjoyed in some separation, and man is capable of many such separations. But it is of great educational importance to note that when you have drawn off the cream, what is left of the milk is pretty sad stuff. It may sustain life, but what is life worth without richness? Also, to ride the analogy a little harder, it is in the cream that we find the most concentrated and immediately available energy elements. Is it too farfetched to say that *in the aesthetic phase of experience we find those emotional elements from which we derive all of our continuing motivations?*

Two further things are to be noted at this point. *No activity is fully worth our human energy unless it ultimately emerges at the aesthetic level.* If it does not do this, it is a signal for the engineer to get busy and create a machine for doing such sub-human work. In the second place, it is the business of the aesthetic, dealing as it does with emotional elements and factors, to reach back into all our other activities and show where their real meaning lies. In our civilization, it is time that bankers, for instance, really know why they carry on the banking business. They will not know this unless someone more sensitive than they calls attention to the connection between their function and the human values to be served. I am glad to say that here and there the artists in various fields are contributing something to this need, as, for instance, in the theater and in painting.

Thus I am willing to claim that there is no activity that men carry on that is not capable of being either a gross and ugly matter or a finely organized and beautiful matter in itself. *In education, we must assure ourselves that children discover this complete interconnectedness, and have their feet set in the path that leads directly and without gaps from our primitive behavior to the finest things that we can do.*

One further remark is appropriate. The artist lives and gains his experience within a culture. If he is a vital creature, he will take part widely in its activities. Because he is a sensitive person, he will be increasingly interested in the meaning of his experiences, and, insofar as he can clarify these meanings for himself, he will have helped all of us

to gain like clarity. If the picture of the anti-social artist ever had validity, it certainly has little today. The artist is today a *super-socialized* personality, more in touch with human needs than is the common man.

I have already made my third point, which is that *aesthetic is the distinctively human experience.* It is here that we share with the gods. Only man, and he only at the godlike level, may be at once protagonist and audience—laugh at himself, weep over himself, and dramatize himself in a variety of ways which result in new and significant imaginative concepts of human behavior.

Having said these things, I must at once move on to my fourth point, which is that *the aesthetic is the archtype of integrated experience.* Characteristically, the physical activity, the play of emotion, and the intellectual contriving all meet together in a single purpose. Thus comes about the complete union of function and form, of efficiency and grace. Here lies the explanation of the commonly known fact that the most economical movement always approaches the most graceful—the golfer's most efficient shot stands up best under the eye of the slow-motion camera. Socially, I have suggested that art activities knit the individual and the group together, and that they are expressive, communicative, clarifying, and idealizing of the group's inarticulate needs, emotions, and responses. And, by slight extension, they also integrate the total culture; and ultimately we learn to live in houses that are significant in form as well as convenient for shelter—to ride in motor busses which offend the eye less as they gain in speed, efficiency, and comfort—and to amuse ourselves in ways that build us up rather than tear us down. And so on throughout—if we but give the artist a decent chance.

When we consider the worker's way with his job, *we see in the best art activity the complete unity of worker, purpose, and tools.* No one is less important than the other, and the good worker would be put to it, when he is doing his best work, to separate these elements in his mind.

*Pedagogically* (and here I am at last at the heart and center of my plea), *aesthetic behavior emerges repeatedly and almost inevitably from unimpeded, but not unguided, growth.* Such activity is free and flexible, adventurous and expansive, imaginative and unpredictable, unique in its results. It is self-motivating for the doer, and stabilizing in its emotional effects because constantly in it, energies have been organized

rhythmically, harmoniously, and beautifully around a unifying purpose. *If the schools could contrive to bring all of their patterns of activity into this framework, regardless of subject matter, we could cease worrying about most of the "problems of education."* The problem is not to build integration; it is to preserve the natural integration with which young children start and which free animals largely maintain. On page 19 of Dewey's *Art as Experience*, you will find a statement of this integrated character of the animal's activity. As Dewey expresses it, "The live animal is fully present, all there, in all its actions. . . . As you watch, you see motion merging into sense and sense into motion—constituting that animal grace so hard for man to rival." All of its past experience and growth is pointed, as it were, in its nose as it faces the next experience. This activity is not consciously aesthetic to the animal, but objectively it is a beautiful phenomenon to man the observer. Our phrase, "unconscious animal grace," is merely a way of stating that such action is completely integrated.

My constant reference to action brings me to point number five. *In art activity, the appeal is always to action, to rendering concrete the totality of experience.* While the scientist labors hard to rule emotional purpose and human urges and preferences out of his findings, the artist, with more courage, tackles the whole complex. And when he is successful, his report of experience has just that much more validity. It has always seemed very queer to me that we should find the scientist so much more dependable than the artist. I think the explanation must lie in the fact that we have never quite succeeded in realizing what we most need to have done for us. The artist always draws from, and appeals to, concrete *experience*, even if his medium is verbal. In that case he succeeds in the degree that his verbalisms evoke living, concrete realities for us. And the nearer he comes to catching life in action, the more surely this reality emerges. His method, therefore, is not to talk about experience; it is to reconstruct experience before our eyes. And we desperately need this service. For this reason, I am willing to say that while the artist may be permitted temporarily to withdraw from life, we must always insist that he return to it with his more-than-lifelike interpretation. It is in this way that he insures the continued growth of life.

### ESSENTIAL SERVICES OF THE ARTIST

All I have thus far said is as true of one culture as of any other. In as rapidly changing an era as ours, every need we have for the artist seems to be sharpened. The essential services which the arts can and do perform if they will address themselves with imaginative vitality to their own milieu become almost a matter of emergency in our time.

It being the natural tendency of art activity to linger over experience, the arts serve to provide continuity in a welter of change. By clinging to experience now with us (and therefore on its way to the past) until its essential meanings are brought forth, artistic interpretation helps us to take leave without despair of what is being outworn. For example, we may relinquish with reasonable grace the living faith of a religious system if its priests have been artists enough to clothe its code and practices in an urbane and beautiful investiture. It is of course true that this very same tendency lays the arts open to the danger of habituating us so thoroughly to the outworn that we can never pass on. The remedy here lies in the preservation of vitality among art interests. Sterile classicism and decadent morbidity are old stories in every intellectual and professional field. It is not that art dies; merely that some artists die while still continuing to breathe and take up room. If for no other reason than this, art education should be extremely tolerant of the new, but critically so, out of its critical knowledge of the old. It is bad enough to have with us as a constant human weakness the tendency to become weary and sink into a sterile coma without encouraging the artist or the art educator to do so with our approval.

This brings us to another very important service of the arts, and that is to prophesy and signify cultural *advances*. The artist is such because his skin is a little thinner, his eye and ear a little sharper than is true of our average equipment. He thus serves by becoming earlier aware of what is coming over the horizon. Imaginatively he may and does then lay before us the color of the new sunrise before our eyes are quite able to deal with its full reality.

Finally, the intense preoccupation of the artist with the world as he just now experiences it allows him to interpret and make coherent the confusions inherent in rapid change. If he does nothing more than

assert and decry this confusion he does us a service, for the perception of confusion is the first step in resolving it. Thus to me it is by no means anomalous that, in an age when everyone is rushing hysterically about and the mass of the population can find nothing better to do than drift vacuously and aimlessly along the public highways in mass formation—when it might be assumed that we had neither the time, the serenity, nor the intelligence to explore the arts—the actual fact is that there is a more widespread and a more intense interest and practice in art fields than ever before, at least in terms of numbers of the population involved in them. And also to be noted with great satisfaction is the fact that in our society the process of integration of the arts with the ordinary activities of average people is moving forward with great strides. The most dunderheaded automobile manufacturer is now fully aware that the quickest way to sell his product is to call in the designer.

### THE FUNDAMENTAL EDUCATIONAL EXPERIENCE

All the foregoing has been purely a background for the statement which I am now willing to make quite baldly—that *art experience is the most profoundly basic of our educative experiences.* At a time when superintendents of schools, boards of education, and parents have been quite willing to call the arts fads and frills and to throw them out of the schools forthwith, I am quite willing to defend the statement that *all educational processes should begin, continue, and end with art experience.* Before going on to define in more detail my claim for the arts, I may say that the blame, if there is blame to be attributed, for the philistinism of the common man lies at the door of the artist, or at least the art interpreter and educator—for I am willing to leave the artist to his own particular business, which is that of producing art. The art educator has not only failed to take the public into his confidence, but he has actually given himself superior airs, as a person too sanctified by knowledge of the aesthetic mysteries for the common touch of mankind. The artist, the critic, and the art educator are themselves mainly responsible for such false divisions as that between fine and practical arts, between art and ordinary activities of men. If these specialists really had faith in themselves and their work—had they known beyond doubt that the artistic response is central in the primitive core of life—why

should they not have addressed their courage and energy to making this knowledge available to everyone? At least, the art educators have had contact with the young. In this plastic time they could have done very much to create a different scene *if they had taken their students to life and to the vital artists of their time, instead of to books, to mausoleums of antiquarian classicism, and to technical exercises completely meaningless to the child.* The art educator has been busy throwing small bombs through the administrator's window. I am in the mood to heave this one back at him. How can you expect the administrator, the common garden variety of teacher, or the parent to value your work very highly unless you are willing to take the trouble to teach these poor dull mortals how important your function is?

To me, there are at least a half-dozen reasons why I can think of no more fundamental educational experience than that of the arts and aesthetics. These reasons have been implied more or less in what I have already said. Their specific statement, then, will tend to summarize what has gone before, and to make clear why at least one administrator believes the arts to be of basic importance in all educative experience.

First, I would mention *among the services of art activity that of integration.* Life, growth, and learning are the continuous integration of new experience with old. In this sense, all education may be called learning the techniques of integration. Not only in itself, but in the suggestion that such activity conveys to other curricular activity, does art serve here. If you can teach any youngster in the studio the meaning of a fully integrated process, he will to good effect tend to make life more uncomfortable for those teachers who remain unconcerned with his need for integration.

In the second place, *art is a great expander and enricher of experience.* Here one gets the overtones and something of the underlying depths of common events. Dealing with the total experience as it tends to do, it rounds out and matures the meanings of experience. Here again the student who has felt this kind of thing will not willingly go back to a thinner existence.

Third, and related to the second point, *is the capacity of art to balance experience.* In our terrifically verbal schools, the concrete, the practical, and all forms of non-verbal activity may now again gain respectability,

to the end that practical and ideal interests become unified. If experience is filled out in these ways, there is little likelihood that the students' ideas will go off half-cocked because they are thin, superficial, and lacking in significance.

Fourth, *the arts teach much about motivation, because they are in the main self-actuating, supplying their own dynamic, and continuing for love of the doing.* I should be very loath to see work in the arts lose anything of this voluntaristic character. I should far rather begin with five students in the school carrying on art activities for love of them than to organize required courses for all students. If you art educators are not smart enough to build a climate in which the arts will be voluntarily carried on by a large number of students, you will simply repeat on new ground the mistakes made in the traditional subject matter fields, and, incidentally, fail in the task I have set for you.

Fifth, *art is a great evaluator.* Our ideas are tested against value, and if they evoke no feeling, they may be dismissed as of little importance. Such activities supply the experience of an internal logic of order which is integral to the job itself and not manufactured by some university savant by a process of verbalistic analysis. Again, in their direct appeal to life and actual experience, they tend to help the youngster get his values on straight. Thus he is helped to defend himself against the narrow cluster of special interests to which grown-ups, including teachers, so often reduce their lives. In other words, if you art educators do your job, you can help a needy youngster discover what thin stuff he may be getting from the teacher of mathematics, or even the teacher of social studies.

Sixth, *art is a great prophesier.* The artist has a characteristically thin skin, which feels slight winds and new stirrings. Brooding thus sensitively on life, he constantly discovers rising ground-swells of changing human interest. And if he broods deeply, his discoveries are likely to be sound. Thus art often antedates new philosophies before they become articulate. The producer usually precedes the critic. The philosopher ordinarily has to come along and clear up and put in order after both. I can think of no general philosophical concept which has ever emerged to social consciousness without being antedated by years, decades, and even centuries by one or more artists. It is therefore of the

utmost importance that the student not only discover what the great artists have said and done in order that he may approach a little more critically other interpretations of life; he must himself have had some experience helping him to observe life sharply, closely, and with intense interest, in order that he may acquire some of this capacity to feel the thing while it is happening.

Finally, *the arts become a great social unifier. Out of experience, and appealing again directly to experience, by means of experience, the artist makes clear to us our confusions, our needs, and he may on occasion suggest some solutions to our problems. Working by means of concrete products and appealing to us through emotionalized intelligence, he tends to convince without argument.* Thus we are persuaded by the imaginative artist to new modes of living more readily and more painlessly than we are by the priest or the teacher, unless these be the rare souls who are also artists. It is quite possible that Negro music has done more for race relations than all of the diatribes of the lady missionaries or the fanatically self-conscious Negro leaders. If there were time, many other instances of this character could be mentioned.

In thus attempting to get before you flickering snatches of what seems to me to be a compelling educational philosophy for the art teacher, I have certainly fallen far short of giving you a decently coherent work of art. If I have helped a little to remove some of your fears, to strengthen your hands for further and more pugnacious onslaughts on administration, and to convey the possibility at least that administrators can be taught some respect for your interests by no matter how painfully long a process, I shall probably have done enough damage for one afternoon.

# Radio: An Elementary Science Teaching Tool

By ROSE WYLER

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THIS article can merely present a general survey of the kinds of radio broadcasts useful in the teaching of elementary science, for both the teaching tool and subject matter are still quite new in the elementary school. Although there has been a considerable number of research studies of educational broadcasting and of elementary science objectives and methods, thus far very little research work has been done on elementary science broadcasts.

To begin with, there are still relatively few science broadcasts for the listening audience as a whole and not all of them are suitable for elementary school children. The types of science broadcasts which can be used in elementary school science activities are similar to the types of educational broadcasts available in other fields. There are those broadcast specifically for school use and presented during school hours and there are non-school programs for the general adult audience, some of which can be listened to with profit by intermediate grade children. A number of these non-school educational features come during school hours but most of them are broadcast during the late afternoon and early evenings or on weekend "spots." Practically all of the school and non-school science broadcasts are sustaining programs—that is, they are presented without the sponsorship of commercial institutions. Sometimes, however, good commercial science programs are available, such as the "Science Forum" which General Electric has been broadcasting over its own stations.

The school science programs are broadcast either by the national

networks, by state departments of education, or by local school systems. Generally outlines of these programs containing advance information for the teacher are sent out, and in some cases activities which can be used for follow-up work are suggested. These school programs may be roughly divided into two categories: (1) the supplementary programs, and (2) the basic programs. The supplementary programs are designed to enrich the curriculum and are planned in such way that they can be used as motivating material, as a review of a previous learning experience, or as a means of presenting a new viewpoint of a given scope of content. The method is dependent upon the backgrounds of the class and the guidance offered by the classroom teacher. For several years, through the facilities of the American School of the Air, the Columbia Broadcasting System has been offering supplementary elementary science broadcasts. This year they are offering, in cooperation with the American Museum of Natural History, a series called "New Horizons," broadcast on Thursdays at 2:30 P. M. Eastern standard time. This series consists of interviews with Dr. Roy Chapman Andrews in various museum halls and of dramatizations of stories that lie behind some of the museum exhibits. The National Broadcasting Company is also offering a supplementary elementary science broadcast this year, on Tuesdays at 2:00 P. M. Eastern standard time over their blue networks. This series is called "Science Everywhere" and is presented in collaboration with the American Association for the Advancement of Science. Dr. Carroll Lane Fenton has charge of these broadcasts. These two programs, since they are offered on coast-to-coast hookups, have the largest listening audiences of any of the school science broadcasts.

The basic type of school broadcast differs from the supplementary in that it is planned as an essential part of classroom instruction. Directed lessons may be given during which the radio teacher presents detailed instructions for carrying out certain activities or he may be working with a group of children who are solving problems which are pertinent to the class listening in. Such broadcasts can be used as teacher substitutes or, if not actually to reduce the number of teachers, at least to make the services of a specialist available to a larger group. Naturally such programs, since they are part of a definite curriculum, are broadcast by municipal boards of education. Outstanding experiments in basic

radio lessons have been conducted in Cleveland, Ohio, and in Rochester, N. Y. In Cleveland, elementary science programs, developed under the direction of the elementary science supervisor, have been broadcast directly into the classrooms, thereby giving the elementary school children opportunity for regular work with a science specialist.[1] In Rochester, where there is a large group of students without junior high school science laboratory facilities, radio lessons are broadcast to junior high school classes. In these broadcasts, suggestions are given for doing experiments with simple homemade apparatus.[2] Both communities report that these basic science lessons are successful.

Besides these school broadcasts, other types of science educational programs are available. These may be broadcast by the networks, by museums, or by scientific organizations interested in the popularization of science. Most of these non-school broadcasts are given outside of school hours and, although intended for the general adult audience, have many elementary school children in their followings. Three programs of this type are offered by the National Broadcasting Company: "The World Is Yours," on Sundays at 4:30 P. M. Eastern standard time over their red networks under the auspices of the Smithsonian Institution; "Science in the News," on Mondays at 6:00 P. M. also over the red networks and featuring Dr. Arthur Compton, who interprets recent advances in science; and "Science on the March" presented Mondays at 7:45 P. M. over the blue networks in conjunction with the American Association for the Advancement of Science, serving to acquaint listeners with the background of recent advances in science.

Radio has many potentialities as a science teaching tool, particularly in the elementary school where frequently there is difficulty in obtaining authoritative science information. Most of the elementary schools, as yet, are not well equipped with simple science books and furthermore the limited reading vocabularies of elementary school children prevent them from making full use of the science literature to which they might have access. Classroom teachers, in general, have meager science backgrounds and feel inadequately prepared to provide much of the science

[1] Melrose, Mary. "Radio Lessons in Elementary Science." *Science Education*, Vol. 18, pp. 167-168, October, 1934.

[2] Carpenter, Harry A. "Teaching Science by Radio." *Junior-Senior High School Clearing House*, Vol. 8, pp. 421-427, March, 1934.

information their pupils seek. Even where adequate science information is available, there still remains the problem of keeping up with recent developments. There has always been a considerable lag between new discoveries in the field of science and treatment of these in popular form. Programs presenting simple, accurate, up-to-date science information can render very valuable service to our elementary schools.

But perhaps radio's greatest possible contribution lies in the fact that radio is an instrument which can eliminate time and space. By broadcasts from foreign countries, from distant factories, museums, and scenic spots, radio can "take" pupils to places which would ordinarily be inaccessible. Radio can offer dramatizations of past and present events, such as the discovery of the battery, or incidents in the life of Pasteur, and it can bring into the classroom such personalities as scientists and explorers whose accomplishments are challenging to children. It also can acquaint children with the work of other children and, in the broadcast of demonstration lessons, introduce teachers to the work of expert teachers. Since radio is an instrument which can dissolve the walls of the classroom, it has tremendous potentialities as a science teaching tool.

Yet many difficulties beset the development and use of science educational broadcasts. The problem of technique is one of them, for all broadcasts—educational or otherwise—must be interesting. Exposition of science facts and principles does not make good radio material, yet it is difficult to present a science broadcast that is really educational without some explanation of the science content involved. Various forms have been developed but, with the exception of dramatization, none of them entirely solve the problem of maintaining interest while adequately interpreting the science material. Dramatizations of historical incidents in the history of science have been extremely successful but these are difficult and expensive to produce. They require careful research, excellent script writing, and large and well-trained casts in order to be effective. Furthermore, only a limited amount of science material can be presented in this form, for dramatization requires people and much of the content of science does not directly pertain to human activity. Try to think of a way to dramatize the life of the salmon or photosynthesis! If such topics are to be included in a radio series, some other technique must be tried, such as the question and answer method which

has often been used in museum and in scientific association broadcasts. "The March of Science," in which a voice representing the layman questions an authority in science, is an example of that method. The technique has possibilities, but it is likely to develop into a "stooge" type of program wherein the uninformed individual asks "dumb" questions. The use of children as questioners prevents this to some extent and makes for more spontaneity during the broadcast. Yet, unless the questions and answers are written in advance by a good script writer who has a facility for capturing the verve of normal human conversation, questions and answers are likely to be dull and stylized. Children at work on science experiments or on imaginary trips or on real excursions around a museum or industrial plant accompanied by a science teacher or scientist are other techniques which have been used in educational science broadcasts. Some programs contain combinations of these techniques but whatever the form of the program, its effectiveness depends to a large extent on the ability of the script writer to give his voices personalities and in that way make them more than one-dimensional sounds emerging from the loud-speaker.

The use of visual aids accompanying science broadcasts may help concretize the material discussed. At present an experiment with accompanying film strips is being conducted in connection with the "New Horizons" broadcast. Film strips containing pictures of the museum exhibits mentioned are available for each program through the American Museum of Natural History. There is a small charge for each film strip, but a sample strip is available to each interested school.

Yet even if accompanying film strips become widely adopted, the science broadcasts will still have to stand on their own merits as radio programs, for not every listener will have access to this visual aid.

Writing good educational science scripts requires a background in science, an ability to popularize the subject matter, and the power to create characters as well as an understanding of educational objectives and methods. As yet there are few people or even groups of people organized to work collectively who represent the desired combination of science popularizer, educator, and writer.

This has been a factor limiting the number of science broadcasts available during and outside school hours. Naturally stations are hesitant

to broadcast programs unless they are interesting. This fact presents a challenge to create programs which will catch and hold interest and at the same time bring about desirable educational outcomes.

Another factor which has tended to limit the number of science programs available for elementary school use has been the slowness with which the elementary science movement has spread through the American public school systems. The school trends and the radio trends are not isolates but are interacting, for as the number of good science programs heard by elementary school children and teachers increases, the more science will be brought into elementary classrooms by the children themselves and by the teachers.

Listings of programs now available add to the difficulties involved in widespread use of radio as an elementary science teaching tool. Since teachers as a group are not yet fully aware of the possibilities of radio in the classroom, they are ignorant of the means of finding out what educational broadcasts can be heard. Newspaper listings, which often give only abbreviated titles, are not adequate radio guides. To overcome this situation, some municipal systems have directors of radio education (sometimes this work is combined with visual education) who send out bulletins listing programs of interest to the schools. Ohio State University circulates a monthly bulletin entitled the "Ohio Radio Announcer" which lists educational broadcasts available in the Ohio area. A few public school systems have radio councils which not only offer listings of programs but also hold discussions and training classes on the use of radio in the classroom and conduct workshops for script writing and production. The Chicago Radio Council conducted by the Chicago Board of Education is an example of such an organization.

Since some type of guide usually accompanies the regular school broadcasts, teachers can consult this material for schedules and topics in order to prepare classes for listening in. But not all teachers are yet aware of the availability of such study guides as are offered for use in connection with "Science Everywhere," the National Broadcasting Company school presentation, and the teachers' manual for the Columbia Broadcasting System's American School of the Air which includes synopses of the "New Horizons" broadcasts. Besides these, the networks issue leaflets regularly listing all the programs they consider educational.

Any teacher or administrator who requests them from the networks will receive them regularly. These listings plus those found in the daily newspapers, despite their inadequate titles, will give a classroom teacher some indication of the science radio programs which her group might use in or out of school. For fuller coverage, cooperation with local stations might be obtained. Many of them will send copies of the advance listings they receive to school administrators.

That teachers are becoming increasingly aware of the potential value of radio in education is indicated by a study made in the Federal Office of Education which reveals that approximately two-thirds of all the school systems in the United States make some use of radio programs.[3] Only a small fraction of them, about one sixth, report use with any degree of regularity, which seems to indicate that teachers need to know more about available programs and how to use them in their teaching.

Much experimentation on the most effective use of radio programs in the classroom is still needed. Naturally the use of a particular program depends upon the material broadcast but teachers who have used radio are aware of the need for the proper setting of the broadcast. In general, they report unsuccessful results when large groups listen to science programs in an auditorium. Better results, as far as could be determined by the writer from a study of teachers' judgments with respect to the use of the American School of the Air science broadcasts, are obtained when one or two classes listen in a regular classroom. These teachers stated that preparation for the broadcast is highly desirable and that the extent of preparation needed is dependent upon the backgrounds of the group. Children without background or preparation are not likely to be interested in the educational science broadcasts offered. Apparently just the auditory medium does not in itself provide enough experience with the subject matter to challenge science interests of elementary school children. Where there is radio equipment and sufficient preparation for science broadcasts, teachers seem enthusiastic about their use. Apparently school science broadcasts meet real needs in our public elementary schools.

[3] Koon, Cline M. "School Use of Radio." (Course syllabus.) University of Wyoming, 1936.

# Improved Visual Acuity Tests for Young Children

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SENSORY TESTING invariably involves psychological factors. This is particularly true in testing young children for vision or hearing defects. Therefore adequate and reliable testing of these sensory defects is to a great extent a psychological problem and cannot be accomplished without a thorough understanding of child behavior. Test devices must enlist the interest or undivided attention of the young child as well as meet other scientific requirements. Unless the method of the test is appropriate to the developmental age of the child, the responses obtained may reflect lack of comprehension or cooperation rather than the defect that appears to be indicated. Examining young children for visual acuity presents a number of problems not encountered in testing older children and adults. The young child's short attention span, tendency to fatigue quickly, and inability to sit still long are complicating factors.

However, in view of the demand that school work makes on the eyes both at near and far visual ranges, it is imperative that as early in their lives as possible, those children with visual defects that may interfere with successful school achievement should be sifted out and referred for treatment to eye specialists.

After considerable experimentation we have devised new materials for visual acuity testing that appear to meet the necessary criteria. An adaptation of the Snellen E chart has been developed that capitalizes

the child's interest in games and elicits responses that are pleasurable and natural. These tests are designed to test gross deficiency in visual acuity, to sift out the children requiring more intensive examination by oculists.

## DESCRIPTION OF THE TEST

The test materials consist of the following: a standard E chart[1]; a dark gray cardboard as large as the chart with two square openings cut in it, one two and one-half inches square for the exposure of the larger E symbols, and the other one and one-fourth inches square for the exposure of the small E symbols; four white cards nine and one-half by twelve inches, referred to as A cards, (see Figure 1) held together by metal rings or other means that permit turning the cards, on which are large black E symbols, each in a different position; a circular white card containing a duplicate figure of the large symbol on one side and a smaller symbol, in the same position as the larger, on the reverse side. The latter card is mounted on a small wooden stand by means of a metal pin passing through the middle of the card to the upright part of the stand. (See Figure 2.) In addition, the equipment includes a very light, flexible metal headband designed to shut out vision in one eye. (See Figure 3.)

The test is so designed that it can be given by one examiner. This is

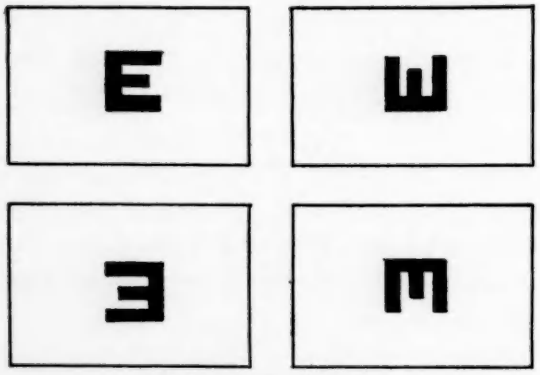

FIGURE 1. THE A CARDS.

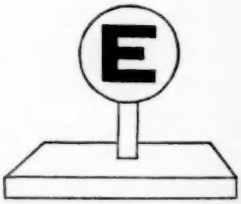

FIGURE 2. CHILD'S TABLE CARD.

FIGURE 3. THE HEAD BAND.

[1] Published by the National Society for the Prevention of Blindness, 50 West 50th St., New York City.

an advantageous factor, since it is often impossible for two adults in most institutions to devote their individual attention to administering tests as is required by most methods of testing vision of the young child. An assistant may be helpful, however, in seating the child and in making the record.

The E chart is hung on the wall or on a rack, or held by the examiner at a distance of twenty feet from the chair on which the child is seated at a low table. The chart is hung or held so that the smaller symbols are approximately on a level with the eyes of the child being tested.[2] The single mounted card is placed on the table with the large symbol on the card facing the child. When the child is brought into the examining room he is told that he is to play some games. He is comfortably seated with his feet touching the floor. He is told, "Here is a little crown for you to wear." The headband is then slipped on with a clean sheet of paper secured on the small hooks on the left side of the band which spans the forehead. This paper is about three and one-half inches square, with about one-fourth inch of the inner edge, the edge turned toward the wearer's nose, folded inward. The band is adjusted so that the folded edge of the paper fits over the bridge of the child's nose which prevents his looking out from under the paper by turning his head. "We're going to play a game with one eye, then the other." The examiner points to the card on the table containing the large "E" and says, "Here's something that looks like a funny little animal with three long legs. Let's pretend he's a dog that does tricks. We can make him stand on his head so that his legs will be out on this side. We can make him lie on his back with his legs straight up like this. We can make him sit up with his legs up this way, and we can make him stand up like this." During this explanation the examiner rotates the card, changing the figure each time to correspond with the verbal description.

The examiner now shows the child the first of the A cards (Figure 1) saying, "Now look at this animal," indicating the symbol on the card. "I shall make that dog," indicating the mounted symbol, "do the same trick that this dog is doing." The examiner then turns the mounted symbol until it is in the same position as the symbol on the A card, calling the

[2] It is important that the lighting be standard for vision tests. See Manual "How to Test for Visual Acuity" by the National Society for the Prevention of Blindness.

attention of the child to the fact that the legs of the two animals point in the same direction. The second card of the A cards is then exposed, the examiner again matching the position of the mounted symbol with the symbol on the A card.

Then the third of the A cards is shown and the child is asked to do the matching. This is repeated with the fourth card of the A series. This process is continued at the table until the child shows that he understands the directions. When this point is reached, the examiner steps to the Snellen E chart at twenty feet distance from the child and asks the child to make his animal do the trick of the animal which will appear in the "little window." The examiner then exposes symbols on the chart by means of the open squares in the dark gray cardboard, taking first the larger symbols on line 50, if the child can see these, and then perhaps one symbol on line 40, two on line 30, and then the four symbols on line 20, if the child is able to distinguish symbols of these various sizes. In other words, the exposure of the symbols is the same as in the regulation Snellen E test. The examiner is able to check on the child's matching procedure by means of watching the small symbol on the circular mounted cardboard which is exposed to the examiner's view.

When the acuity of the right eye is tested, the paper covering the left eye is removed and the right eye is covered in a similar manner. The visual acuity of the left eye is now tested.

The total time for the examination of the youngest children does not ordinarily exceed four or five minutes.

During the examination the examiner or assistant records any signs she may have observed incidentally of vision deficiency as indicated by the child's posture, facial expression, or comments made.

## ADVANTAGEOUS FEATURES OF THE TESTS

In developing this new series of tests it seemed imperative, first, through trial, to determine whether or not the method was suitable to the mental maturity of the children we wished to test. At the outset we wished to control the factor of intelligence so that results would not be measures of mental maturity rather than measures of visual acuity. A little experimentation readily showed that children as young as four and gifted children of three were able to respond to the simple test of

matching the orientation of the E figure with another figure in a certain position.

The game makes a strong appeal to the young child. The puzzle element in the turning and matching of the figure is highly entertaining. As one kindergarten child commented, "Gee, this is a swell game. I'm going to ask my mother to get me one."

At one point in our early experimental trials when the card came off the stick and we asked the child to continue by simply holding the card and rotating it in his hands, he objected that he liked to play the game best when the card was fastened to the stick.

During the testing, children spontaneously made such remarks as: "I like to do this," "This is fun," and "I like this way better than the other," referring to the commonly used method for the Snellen E test. When one child was waiting his turn to be tested, he refused to be satisfied with picture books at hand and kept asking eagerly, "When can I play that game?"

The test can be given entirely without the use of language, although some conversation makes the situation more normal with children who have normal hearing. No language response is required from the child. This seemed a desirable feature because of the need for testing the visual acuity of children from foreign homes, those with speech defects, deaf children, and those who are too self-conscious to talk.

The tests are extremely simple to give and score. They can be given and the results recorded by one person who may not have had a great deal of experience in the use of such tests.

The materials are inexpensive, well within the typical school and welfare agency budget.

The test also allows for a natural means of resting the eyes in the re-focusing of the eyes from the distance of twenty feet to close range. The commonly employed method of accomplishing this by having one of the examiners cover for a short time both eyes of the child being tested, is an unpleasing experience to a young child.

The method of covering the child's eyes prevents distraction and saves emotional disturbance. Evidently, because the band is very light and the paper suspended from it does not come in contact with the eye itself, children seem to be unconscious of having one eye covered.

TABLE I

RESPONSES ON THE SNELLEN E TEST METHOD AND ON THE HILDRETH-AXELSON ADAPTATION OF THE SNELLEN E TEST METHOD

| Name of Child | Sex | Age* | Findings on Snellen E Test Method | | | Hildreth-Axelson Adaptation of Snellen E Test Method | | |
|---|---|---|---|---|---|---|---|---|
| | | | Date of Test | Refraction Rt. Eye | Refraction L. Eye | Date of Test | Refraction Rt. Eye | Refraction L. Eye |
| J.F. | M. | 3-7 | 9-19-37 | 20/20 | 20/20 | 2-11-38 | 20/20 | 20/20 |
| R.G. | M. | 3-10 | 10-28-37 | 20/20 | 20/20 | 2-11-38 | 20/20 | 20/20 |
| P.M. | M. | 3-6 | 9-29-37 | 20/30 | 20/30 | 2-11-38 | 20/30 | 20/30 |
| A.C. | F. | 3-4 | 9-20-37 | 20/30 | 20/30 | 2-3-38 | 20/30 | 20/30 |
| A.W. | F. | 3-11 | 2-14-38 | 20/20 | 20/20 | 2-14-38 | 20/20 | 20/20 |
| J.W. | M. | 4 | 9-24-37 | 20/40 | 20/40 | 2-3-38 | 20/40 | 20/40 |
| D.F. | M. | 4-10 | 2-15-38 | 20/30 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| H.T. | F. | 4-4 | 11-11-37 | 20/30 | 20/30 | 2-3-38 | 20/20 | 20/20 |
| C.M. | M. | 3-10 | 9-22-37 | 20/20 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| B.D. | F. | 3-9 | 9-29-37 | 20/20 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| J.S. | F. | 3-11 | 11-4-37 | 20/30 | 20/30 | 2-3-38 | 20/20 | 20/20 |
| T.D. | M. | 4-4 | 9-27-37 | 20/20 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| A.K. | F. | 4-6 | 9-20-37 | 20/20 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| T.B. | M. | 5-3 | 11-30-37 | 20/30 | 20/30 | 2-11-38 | 20/20 | 20/20 |
| P.H. | F. | 5-3 | 11-18-37 | 20/20 | 20/20 | 2-11-38 | 20/20 | 20/20 |
| P.S. | M. | 5-2 | 1-17-38 | 20/20 | 20/20 | 2-11-38 | 20/20 | 20/30 |
| M.H. | F. | 5-2 | 1-17-38 | 20/30 | 20/30 | 2-11-38 | 20/30 | 20/30 |
| D.E. | M. | 5-4 | 12-2-37 | 20/20 | 20/20 | 2-11-38 | 20/20 | 20/20 |
| S.G. | F. | 4-8 | 9-24-37 | 20/30 | 20/30 | 2-3-38 | 20/30 | 20/30 |
| P.W. | F. | 4-10 | 9-27-37 | 20/20 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| S.S. | F. | 4-10 | 10-15-37 | 20/20 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| E.M. | F. | 5-5 | 1-15-38 | 20/30 | 20/30 | 2-3-38 | 20/30 | 20/30 |
| J.R. | M. | 5-2 | 2-14-38 | 20/30 | 20/20 | 2-3-38 | 20/20 | 20/20 |
| T.R. | M. | 5-4 | 2-14-38 | 20/30 | 20/20 | 2-3-38 | 20/30 | 20/20 |
| J.W. | M. | 5-3 | 2-15-38 | 20/30 | 20/30 | 2-3-38 | 20/30 | 20/30 |
| C.C. | F. | 6 | 10-14-37 | 20/20 | 20/20 | 2-15-38 | 20/20 | 20/20 |
| S.G. | M. | 6-3 | 1-10-38 | 20/20 | 20/20 | 2-15-38 | 20/20 | 20/20 |
| S.S. | F. | 5-9 | 10-14-37 | 20/20 | 20/20 | 2-15-38 | 20/20 | 20/20 |
| R.R. | M. | 5-8 | 12-16-37 | 20/40 | 20/30 | 2-15-38 | 20/30 | 20/30 |
| P.S. | F. | 5-10 | 10-20-37 | 20/20 | 20/20 | 1-28-38 | 20/20 | 20/20 |
| M.L. | F. | 7-3 | 12-8-37 | 20/20 | 20/20 | 1-28-38 | 20/20 | 20/20 |
| L.G. | M. | 5-9 | 10-14-37 | 20/20 | 20/20 | 1-28-38 | 20/20 | 20/20 |
| H.C. | M. | 8-3 | 10-14-37 | 20/20 | 20/20 | 1-28-38 | 20/20 | 20/20 |
| †F.C. | M. | 5-9 | 10-14-37 | 20/40 | 20/30 | 1-28-38 | 20/40 | 20/30 |

*Age at time of first test. †With glasses.

TABLE I—CONTINUED

| Name of Child | Sex | Age* | Findings on Snellen E Test Method | | | Hildreth-Axelson Adaptation of Snellen E Test Method | | |
|---|---|---|---|---|---|---|---|---|
| | | | Date of Test | Refraction Rt. Eye | Refraction L. Eye | Date of Test | Refraction Rt. Eye | Refraction L. Eye |
| N.W. | F. | 6–8 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| D.S. | M. | 6 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| J.C. | M. | 6–9 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| R.C. | M. | 6 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| E.S. | M. | 6–8 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| A.C. | F. | 6–4 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| A.E. | F. | 6–6 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| M.S. | F. | 6–4 | 10–26–37 | 20/30 | 20/30 | 2–1–38 | 20/30 | 20/30 |
| D.A. | M. | 6 | 12–7–37 | 20/20 | 20/20 | 2–1–38 | 20/20 | 20/20 |
| E.C. | F. | 6–4 | 2–15–38 | 20/30 | 20/20 | 2–14–38 | 20/20 | 20/20 |
| M.B. | F. | 5–11 | 2–15–38 | 20/20 | 20/20 | 2–14–38 | 20/20 | 20/20 |
| P.P. | F. | 7 | 2–15–38 | 20/30 | 20/30 | 2–14–38 | 20/30 | 20/30 |
| W.P. | M. | 6–10 | 12–7–37 | 20/20 | 20/20 | 2–14–38 | 20/20 | 20/20 |
| D.L. | M. | 6–10 | 2–15–38 | 20/20 | 20/20 | 2–14–38 | 20/20 | 20/20 |
| E.T. | F. | 6–11 | 1–3–38 | 20/30 | 20/30 | 2–3–38 | 20/30 | 20/30 |
| D.L. | M. | 5–7 | 2–15–38 | 20/30 | 20/30 | 2–3–38 | 20/30 | 20/30 |

*Age at time of first test.

Furthermore, the method is more effective than that of simply holding a card over one eye, because in the latter case a young child frequently moves his head quickly to free his eye of the covering card. The metal band is sanitary as it can be washed or quickly wiped with an alcohol sponge.

The test, though especially useful with younger children, is also well adapted for the examination of older subjects.

The validity of the new test was checked by comparing results with the Snellen E test responses for fifty children aged three through seven years. Table I presents the findings on the Snellen E test method and those on the Hildreth-Axelson adaptation of the Snellen E test method. These results show a variation in refraction in eight children out of the fifty, or 16.0 per cent variation.

In six cases, the difference is that of 20/30 refraction obtained in the commonly used method of administering the Snellen E test to 20/20

refraction in the adaptation method. In three children this difference was in the refraction of one eye, and in the other three in both eyes.

For one child the refraction was 20/40 in one eye with the commonly used method and 20/30 with the adaptation method. Only in one case did the new method measure less visual acuity, a refraction of 20/30 as against 20/20 with the Snellen method.

The above findings it was felt by the examiners, as the result of the work done at this stage, were due to better cooperation of the children in the adaptation test, since the children showed greater interest than with the commonly used method. The results could hardly be attributed to greater maturity of the eyes of these children, for the time that elapsed between the tests was only two to three months in most cases.

# Measuring Intellectual and Dynamic Factors in Activity and Control Schools in New York City

By J. W. WRIGHTSTONE, JOSEPH RECHETNICK, WILLIAM A. McCALL, *and* JOHN J. LOFTUS*

AN ARTICLE describing the inauguration of an activity program in sixty-nine schools of New York City was published in THE RECORD for April, 1937.[1] A second article setting forth the need, structure, functions, and interpreted results of a school practices questionnaire administered to 8,750 children near the end of the Spring Session of 1937 was published in THE RECORD for December, 1937.[2] This questionnaire revealed the extent to which the activity schools *were* activity schools and hence different from non-activity, or traditional, schools. A third article, published in THE RECORD for February, 1938,[3] dealt with a comprehensive achievement test, its function, structure, place in the experiment, and the interpretation of results obtained by its use with approximately the same children. The present article deals with a comparison of the results obtained from activity and control

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Acknowledgment is made of assistance rendered by the Works Progress Administration of New York, Project 465-97-3-79.

[1] McCall, William A. and Loftus, John J. "America's Largest City Experiments with a Crucial Educational Problem." *Teachers College Record*, Vol. 38, pp. 602-606, April, 1937.

[2] McCall, William A., Herring, John P., and Loftus, John J. "Measuring the Amount of Activity Education in Activity and Control Schools in New York City." *Teachers College Record*, Vol. 39, pp. 230-240, December, 1937.

[3] McCall, William A., Herring, John P., and Loftus, John J. "Measuring Achievement in Activity and Control Schools in New York City." *Teachers College Record*, Vol. 39, pp. 423-432, February, 1938.

schools on the Modern School Achievement Tests [4] and certain new tests of intellectual and dynamic factors.

The plan of the investigation was essentially the same as has been described in a preceding article. Sixteen schools, eight of the activity and eight of the non-activity type, were equated as to neighborhood, grade position of the pupils measured, chronological age, and intelligence. The instrument used to measure intelligence was the McCall Intelligence Test.[5] This test is a multiple-response test of the multi-mental type, and is, to an unusual degree, free from the measurement of achievement. All the words in the test are found in the easiest thousand words in Gates' *Reading Vocabulary for Primary Grades*,[6] which is based upon Thorndike's count of four and one-half million words and upon other studies. In grade four and above, therefore, the test is not a test of ability to read words, and it is obviously not a test of ability to read sentences or paragraphs. The test, containing some thirty different types of items, measures a variety of kinds of intelligence so that the student must persistently readjust his mental set by seeking to find thirty or more different principles of relationship among ideas.

The Modern School Achievement Tests are designed to measure achievement in certain skill subjects. These are Reading Comprehension, Reading Speed, Arithmetic Computation, Arithmetic Reasoning, Spelling, and Language Usage. They constitute a battery of tests of the conventional materials which are emphasized in the non-activity classes. The results of the administration of these tests to matched pupils in activity and non-activity schools are given in Table I. The trend of these outcomes is essentially the same in the total group of activity and non-activity classes (involving approximately 9,000 children) which participated in the experiment. For statistical purposes, however, results are presented only for the groups of carefully equated pupils.

An inspection of Table I reveals that there is a slight difference in favor of the pupils in the activity schools in reading comprehension. The critical ratio of .57, however, indicates that this difference is not

[4] Modern School Achievement Tests. Bureau of Publications, Teachers College, Columbia University, New York.

[5] McCall, William A. Intelligence Test. Laidlaw Bros., Chicago, 1936.

[6] Gates, Arthur I. *Reading Vocabulary for Primary Grades*. Bureau of Publications, Teachers College, Columbia University, New York, N. Y., 1935.

TABLE I

RESULTS OF MODERN SCHOOL ACHIEVEMENT TESTS IN ACTIVITY AND NON-ACTIVITY SCHOOLS

| Factors and Schools | No. of Pupils | Average Scores | Standard Deviation | Diff. of Averages | S.E. Diff. | Critical Ratio |
|---|---|---|---|---|---|---|
| Reading Comprehension | | | | | | |
| Activity | 453 | 40.85 | 12.25 | .30 | .53 | .57 |
| Non-Activity | 453 | 40.55 | 11.95 | | | |
| Reading Speed | | | | | | |
| Activity | 453 | 28.02 | 10.40 | −.16 | .52 | −.31 |
| Non-Activity | 453 | 28.18 | 9.96 | | | |
| Arithmetic Computation | | | | | | |
| Activity | 453 | 16.84 | 6.50 | −.92 | .26 | −3.61 |
| Non-Activity | 453 | 17.76 | 5.62 | | | |
| Arithmetic Reasoning | | | | | | |
| Activity | 453 | 11.68 | 6.92 | −.70 | .29 | −2.46 |
| Non-Activity | 453 | 12.38 | 6.74 | | | |
| Spelling | | | | | | |
| Activity | 453 | 44.90 | 14.00 | 1.15 | .67 | 1.73 |
| Non-Activity | 453 | 43.75 | 13.65 | | | |
| Language Usage | | | | | | |
| Activity | 453 | 28.35 | 7.11 | .78 | .37 | 2.09 |
| Non-Activity | 453 | 27.57 | 8.28 | | | |

statistically significant (if a critical ratio is 3 or more, the difference obtained between two average scores is considered significant and will persist in any other set of two groups of which these groups are representative). In speed of reading there is practically no difference in ability between the two groups. Pupils in the non-activity schools are slightly superior in arithmetic computation. The difference of —.92 points between the average scores on this test has statistical significance. There is a difference of —.70 points in favor of the pupils in the non-activity schools on the test of arithmetic reasoning. This difference, however, is not statistically reliable. In the tests of spelling and language usage the pupils in activity schools surpassed the non-activity pupils. In neither of these tests is the difference statistically important.

The new tests which were constructed may be discussed under two separate categories for the sake of convenience. The first category, intellectual factors, or mental content and skills, includes such aspects as working skills in obtaining facts, interpretation of facts, and applica-

tion of facts to new situations in the social studies; and achievement in knowledge of current affairs.

The second category, dynamic factors, or attitudes, beliefs, and opinions, includes such factors as social and civic beliefs, personal and social adjustment.

A description of each of these tests is given in the following paragraphs.

### A. TESTS OF INTELLECTUAL FACTORS

1. *Working Skills in the Social Studies*

This test provides an index for measuring the pupil's ability to obtain facts and information from various sources. Each pupil must have skills and abilities to locate the data in libraries, books, magazines, and newspapers as well as ability to use an index, bibliography, and the like.

The test consists of three major parts: Part I tests the ability of the pupil to read and interpret information from tables, charts, and graphs; Part II, the ability to locate data in books, encyclopedias, or newspapers; Part III, the ability to use an index.

2. *Explaining Facts of the Social Studies*

This test measures the pupil's ability to interpret, to judge, to infer, or to generalize from facts and information. This is distinctly different from memory, recognition, and recall of facts. What do the stated facts mean? What inferences, conclusions, or generalizations may be drawn from them?

The following item in the test may be considered typical of non-statistical and narrative data:

> The Puritans of New England very early took steps to set up a system of public schools. By the famous Massachusetts law of 1647, every town of fifty families was directed to employ and share the expenses for a teacher to teach all children to read and write. The same law provided that as soon as any town contained one hundred families it should establish a grammar school to prepare boys for college.

The pupil indicates his judgment of stated interpretations of the material on the following bases:

(+) Every statement which is true and can be proved by the facts stated.

(O) Every statement which might be true but cannot be proved by the facts stated.
(—) Every statement which is false as shown by the facts stated.

The pupil who achieved a perfect score on the interpretations of the previously cited item would mark the interpretations thus:

a. The Puritans undoubtedly set up the best public schools of any of the early colonies..... a. (O)
b. The Puritans made schooling a part of their laws and expected the towns to support schools..... b. (+)
c. There were no laws providing for a public school system before 1800 ..... c. (—)
d. The Puritans were a religious group who started our public school system ..... d. (O)

3. *Applying Generalizations to Social Studies Events*

This test provides an index of the pupil's ability to apply certain generalizations to particular social studies events. One of the outcomes in social studies is to learn certain major concepts or generalizations. These concepts or generalizations if they are to be of use to the pupil must be applied by him to particular and specific events. This test purports to measure the ability of the pupil to associate the correct generalizations and concepts with particular events so that the particular event is understood in relation to basic social studies concepts.

A sample item of this test is as follows:

In the eighteenth century, when there was a population of about 4,000,000, farming was very different from what it is today. Farms were very small. Most of the farming tools were made by hand. Farmers produced only enough to feed their own families. Today, with a population of 126,000,000, farmers use tractors and electrical machines in working their farms. They can also produce enough to sell to other people. Why was this change brought about?

1. Crops cannot be raised without the help of man.
2. Good roads and harbors make it easier for the farmer to sell his products.
3. Machines have made great changes in methods of farming.
4. The purpose of a government is to help its people.
5. When prices of farm products are high more people become farmers.
6. When the population increases, the need for food increases.

It will be noted that items 3 and 6 explain the social studies events

which are described. The pupil is asked to place a check mark on the line after each test item which explains the facts stated.

4. *Current Affairs*

This test measures the pupil's knowledge and information concerning contemporaneous persons and events. It is intended to measure the pupil's awareness of important people and events in the fields of politics, art, science, sports, and the like.

### B. TESTS OF DYNAMIC FACTORS

1. *Social Beliefs and Attitudes*

Another objective emphasized in all types of schools is the building of desirable attitudes and beliefs. This test purports to measure social attitudes and beliefs in the fields of (1) race attitudes toward Eskimos, Indians, Chinese, Japanese, and others; (2) national achievements and ideals in morals, economics, education, and the arts and sciences. The total score of the test presents a composite index of a person's tendency to favor progressive positions on controversial issues.

It should be pointed out that the progressive or liberal position on these issues does not have the same connotation as the term "progressive" when used in association with progressive education. The items in the test were constructed without bias in favor of either activity or conventional type of program; rather, the material was selected from the point of view of representing activities included in both types of curriculum.

2. *Personality Trait Indicator*

This test purports to measure emotional stability as it is manifested in personal and social adjustments. Part I is concerned with the pupil's personal adjustment with regard to feelings of security, nervousness, and the like. Part II is intended to measure feelings concerned with social relationships.

Table II gives results obtained on the basis of the newly constructed tests. It may be noted that the activity schools have definitely educated their pupils in better working skills in obtaining facts and data than have the non-activity schools. The critical ratio in this test is 5.37 which indicates statistical significance. Pupils in the activity schools

TABLE II

COMPARISON OF ACHIEVEMENT IN INTELLECTUAL AND DYNAMIC FACTORS IN SOCIAL STUDIES BETWEEN ACTIVITY AND NON-ACTIVITY SCHOOLS

| Factors and Schools | No. of Pupils | Average Scores | Standard Deviation | Diff. of Averages | S.E. Diff. | Critical Ratio |
|---|---|---|---|---|---|---|
| Working Skills | | | | | | |
| Activity | 382 | 27.00 | 6.40 | 1.74 | .32 | 5.37 |
| Non-Activity | 382 | 25.26 | 7.54 | | | |
| Explaining Facts | | | | | | |
| Activity | 376 | 19.46 | 5.28 | .60 | .29 | 2.05 |
| Non-Activity | 376 | 18.86 | 5.50 | | | |
| Applying Generalizations | | | | | | |
| Activity | 376 | 40.90 | 7.95 | .55 | .44 | 1.26 |
| Non-Activity | 376 | 40.35 | 7.85 | | | |
| Current Affairs | | | | | | |
| Activity | 387 | 32.86 | 7.56 | .84 | .43 | 1.97 |
| Non-Activity | 387 | 32.02 | 7.24 | | | |
| Social Beliefs | | | | | | |
| Activity | 376 | 35.18 | 5.46 | 1.26 | .36 | 3.46 |
| Non-Activity | 376 | 33.92 | 5.52 | | | |
| Personal Adjustment | | | | | | |
| Activity | 385 | 56.90 | 10.15 | 1.45 | .65 | 2.23 |
| Non-Activity | 385 | 55.45 | 9.50 | | | |
| Social Adjustment | | | | | | |
| Activity | 361 | 48.48 | 8.97 | 2.18 | .63 | 3.48 |
| Non-Activity | 361 | 46.30 | 9.05 | | | |

were slightly superior in ability to draw inferences or to interpret facts in the social studies, but the ratio of 2.05 indicates that this difference is not statistically significant. The abilities necessary for applying generalizations to described events were almost equally developed in both types of schools, for the slight advantage shown by the activity schools is not statistically important. Knowledge of contemporaneous persons and events was also almost equal in both types of schools.

In the field of dynamic factors the activity schools surpass the conventional schools rather significantly in leading the pupils toward more liberal beliefs concerning social, political, economic, and cultural problems. The ratio of 3.46 indicates statistical significance. Scores on the Personality Trait Indicator denote that the pupils in activity schools are superior in self-ratings on emotional stability. The difference of the average scores is not, however, statistically significant. The average

scores for social adjustment indicate that there is a statistically significant difference in favor of the pupils in activity schools in self-ratings on adjustment to social situations.

These findings relative to intellectual and dynamic factors have educational as well as statistical significance. The activity program of instruction achieves results essentially equal to the conventional program in the knowledges and skills that enter into reading comprehension, speed of reading, arithmetic reasoning, spelling, and language usage. The conventional program appears to achieve slightly superior results in the abilities necessary for arithmetic computation.

In addition the activity program provides superior outcomes in the objectives of obtaining and interpreting facts and data; in liberality of social beliefs; and in personal and social adjustment. Therefore, it seems apparent that insofar as these intellectual and dynamic factors are concerned the evidence is preponderantly in favor of the activity practices.

Finally, when these results are considered in the light of similar results described in preceding articles, it is apparent that a majority of all the factors measured appear to have been developed to a greater extent in the activity program than in the conventional type of program. An evaluation in terms of the separate results achieved also reveals more desirable outcomes for the activity method of instruction. It should be kept in mind, however, that these measurements are essentially static in nature and do not represent growth indices, unless we assume that both groups were equal at the start. Until growth measurements are obtained, therefore, all conclusions must be held entirely tentative. Also, we have not to date made any report on the effects of the two types of curricular practices upon the actual behavior of the pupils involved. Results of observations made of pupil activities will be reported in the next article.

# New Studies in Education

## A CURRICULUM STUDY IN A MOUNTAIN DISTRICT*

MANY educators believe that the majority of the mission schools and public schools in isolated mountain areas, as well as in other sections, have long been presenting curricula which are poorly adapted to the needs and experiences of their pupils. Because of this belief and of a desire to improve the curriculum in these areas, the present study was made.

The problem of the study was established by two questions, namely: "What are the needs and experiences of the children in a particular mountain area which should be considered in the adaptation of the curriculum of the school serving them?" and "How can a teacher in the classroom adjust his instructional program to meet such needs and experiences?"

Pupils in eighteen schools of Hurricane Magisterial District of Buchanan County, Virginia, and the communities in which these schools were located were chosen as subjects for the study.

A survey was made by personal visits to each of the eighteen schools; to each of the eighteen communities; and to one-third of the homes represented by the children in the schools. These homes were selected at random. Questionnaires were presented to the pupils in the schools and to the parents in the one hundred and one homes visited. Data were gathered by filling schedules of information about the County, the school communities, the schools, and the teachers in these schools. Case studies were made of the best, the average, and the poorest homes in the District. Group intelligence tests were administered to the pupils in the third to seventh grades inclusive.

Census reports, State bulletins and reports, County records, and social study reports were consulted for information on the County and District.

### FINDINGS

Chapters II, III, and IV of the study present the findings of the survey; Chapter V presents an attempt to use the findings in adapting the recent *Tentative Course of Study for Virginia Elementary Schools* to the needs and experiences of Hurricane District pupils. Through the suggestions for making the adaptations, a technique is developed for using the needs and experiences of pupils in the curriculum. An outline of the technique developed and some illustrations of phases of the techniques follow:

1. Point of view about education.
2. Thorough study of children in their particular environment.
3. Selection for emphasis of aims of education based on findings of study.
4. Plan for broad outline of possible areas of work.
5. Survey of instructional materials.
6. Development of "unit of work."

Illustration of (3) "selection for emphasis of aims of education based on findings of study":

* By HELEN RUTH HENDERSON, PH.D. Teachers College, Columbia University, Contributions to Education, No. 732.

"The curriculum should provide experiences which will assist the pupils in developing a better understanding of the influence of nature upon the development of plants, animals, and the lives of people, and in applying scientific methods to their participation in farm activities."

The records of the pupils, the case studies, and the statements of the parents show that the children participate extensively in farm activities. The boys rather generally confine their activities to the care of livestock and to the cultivation of crops in the fields, while the girls more generally confine their activities to milking, churning, caring for the poultry, and cultivating the garden. However, many boys help with the activities in and about the farm home and many girls hoe the corn and other crops in the fields with their fathers, mothers, and brothers.

The records of the school children show that the large majority of the older brothers who were out of school were farming in Buchanan County, and that the older sisters who were out of school were married and carrying on the usual activities of the farm wife. The unmarried sisters were reported as "staying at home" helping their mothers with farm activities. Ninety-five per cent of the fathers in the homes visited were farmers. Also, the large majority of the gainfully employed people in Buchanan County are classified as farmers.

It is found that improper use is being made of the mountain soil, the methods of cultivation are traditional, inadequate planning is done for subsistence farming, the return from the farm products is low, and the farm activities of the children are directed frequently by unscientific and sometimes illiterate parents who are guided by tradition and "signs."

Illustration of (4) "Plan for broad outline of possible areas of work":

In Grade I the experiences of the pupils are largely limited by life in the home and school. In Grade II the curriculum grows out of the pupils' experiences in exploring the various phases of life in their community. Pupils in the cities and towns of Virginia discover the part the baker, butcher, deliveryman, milkman, and iceman play in supplying community needs. They learn of the contribution of the farmer and miller by visiting markets and bakeries, but seldom do they see the farm products being planted, cultivated, and harvested. These Hurricane District pupils are children of farmers and participate day by day in the activities of farm life. Their experiences begin with the farm, and the teacher should lead them to markets by discussing the loads which the trucks from near-by agricultural and mining towns gather from the stores in the local community. The urban pupils use cash in playing store, and the teacher there should extend their experiences by explaining that some people use barter. Hurricane pupils carry chickens and eggs to the store in exchange for goods, and the teacher should extend their experience by discussing with them and having them read about the way goods are purchased in other communities.

The constable, the sheriff, the highway patrolman, and the adult members of the families are the agencies of protection for the Hurricane children, but the fireman, the policeman, the doctor, and the nurse seldom touch their lives except through stories in books. Protection from the weather is a real problem with them because they walk to and from school over muddy roads, cross swollen streams, and perform chores about the home and barn. Personal protection in their outdoor life is a problem, and the curriculum should help them with this need.

Discussions about the services of stores, mills, mail order houses, the mail carrier, and the local post office should develop within these children an understanding of the interdependence of people in their communities. The exchange of work during the busy season on the farm gives them another experience with the necessity for cooperation among people in communities.

No parks, playgrounds, or other means of organized recreation are provided in these communities but plant and animal life are abundant and the beauties of nature are all about these children. Eighty-seven per cent of the girls and fifty-four per cent of the boys indicated that they gathered wild flowers. Ninety-five per cent of the girls and eighty-eight per cent of the boys reported that they gathered chestnuts. The majority of them reported that they gathered walnuts and fungi, climbed trees, and played on grapevine swings. Experiences in school should help them develop an appreciation for the beauty of their environment and an attitude of protecting the birds, wild flowers, and other plant and animal life about them.

The schoolroom itself offers a splendid opportunity for developing within the pupils an understanding of desirable community life, thereby making of their school experience an example of mutual dependence and help.

# A STUDY OF THOSE WHO INFLUENCE AND OF THOSE WHO ARE INFLUENCED IN DISCUSSION*

THE primary purposes of this study were to construct and demonstrate the use of techniques for measuring two types of influence in discussion, the two types being influence of the individual in formulating the group decision and influence of the individual on the subsequent personal opinions of those with whom the discussion took place; to determine the relationship of certain personality and background characteristics to each of the two types of influence studied; to determine the relationship existing between personality traits and being influenced in discussion; and to discover whether esthetic opinions given subsequent to discussion with peers were more (or less) like those of experts than had been the prediscussion opinions.

Subjects participating in the study included 185 women college students, all of whom were taking psychology at the time of experimentation. The range of subject matter used in the discussions was extremely wide, with educational, economic, political, and social questions constructed by the author constituting approximately five-sixths of the material. For the other material, esthetic questions in the McAdory Art Test were used.

## FINDINGS AND CONCLUSIONS

The study indicated the following with respect to the relation of each of the two kinds of influence to measures of mental ability: (1) scholastic ability on entering college, as measured by the Scholastic Aptitude Test of Verbal Ability, is positively and significantly related to ability to influence others in discussions of the type conducted in the experiment; (2) mathematical ability as measured by the Scholastic Aptitude Test of Mathematical Ability is also positively related to influence in discussion, particularly influence of the persisting individual sort as compared with influence on the group decision although both correlations were positive and significant; (3) no significant relationship exists between either type of influence, immediate group or persisting individual, on the one hand, and mental ability as measured by either the Otis Test of Mental Ability or the McCall Multi-Mental Test, on the other hand; (4) a substantial positive relationship is indicated between in-

* By RAY H. SIMPSON, PH.D. Teachers College, Columbia University, Contributions to Education, No. 748.

fluencing classmates through discussion and favorably impressing teachers, the latter being shown by semester marks given by the instructors. Thus, it would appear that those with the most ability to do the type of work required in school also have the most ability to influence those with whom they engage in discussion.

Findings related to personality indices indicate (1) no statistically reliable relationship between either emotional stability, or self-sufficiency, or introversion, or dominance, all measured by the Bernreuter pencil and paper scales, on the one hand, and either immediate group influence, or persisting individual influence on the other; (2) a small amount of positive relationship between self-confidence as measured by the Flanagan scale and immediate group influence; also, a slight positive relationship was found between persisting individual influence and self-confidence; (3) no relationship between sociability as measured by the Flanagan scale and either type of influence; (4) a small positive but not statistically significant relationship between scores on the Maslow Dominance Test and each of the two types of influence; (5) no relationship between amount of self-evaluated "dominance feeling" and either type of influence; (6) "radicals" are, on the average, somewhat more influential in discussions than "conservatives" (the extent of radical tendencies was measured by Hartmann's Social Attitudes Inventory); (7) religious background is a factor significantly related to influence in discussion, with Jewesses most influential, Protestants intermediate in influence, and Catholics least influential. The failure of general dominance tests to differentiate with respect to dominance in a specific situation such as that represented in discussion is of particular interest.

From a study of the data related to the amount and kind of individual shifts resulting primarily from discussion these conclusions were reached: (1) Those who are most influential in discussion are themselves least influenced by discussion; (2) "influenceability" is apparently not significantly related to either scholastic ability, extremeness of views, or personality characteristics investigated, with the exception of desirability as a friend where it was found that those most desired as friends were least influenced by discussion; (3) those who make the best scores on the art test make fewer shifts and smaller gains, on the average, from pretest to retest than do those who make comparatively low scores on the pretest; (4) discussion of esthetic problems tends to improve significantly the judgments of students on problems discussed, and also on similar esthetic problems.

## SUPERVISION IN GERMAN ELEMENTARY EDUCATION*

COMPARATIVE studies of the elementary school systems of prewar Germany and those of the postwar period revealed certain fundamental differences in organization and practice. The rapidity with which changes took place, and their widespread acceptance, pointed to a deliberate modification of procedures in the direction of improved educational techniques and an organized program to this end, functions commonly associated with supervision as distinguished from administration. This study is concerned with determining the nature of the supervisory leadership under which these basic reforms were carried out and established throughout the nation—the nature and functioning of German elementary education with respect

* By CLARA STRATEMEYER, PH.D. Teachers College, Columbia University, Contributions to Education, No. 734.

to matters concerned directly with the quality of instruction and its continued improvement, and the theories, principles, and practices underlying the functioning of the supervisory agencies so concerned.

In order to base interpretations upon the practical functioning of the agencies concerned, observations and interviews were employed as primary means of gathering data in this study. Preliminary analyses of secondary documentary sources indicated that a few states might well serve as typical of the varying points of view. Accordingly, Prussia, Saxony, and Württemberg were selected as representative of moderate, liberal, and conservative positions. Practices of special interest elsewhere were included whenever they seemed to present a different point of view or to demonstrate a new aspect of practices already considered. In each case visits included both observation of the work as it was carried on and interviews with the teachers and other school officials. Students preparing for teaching positions provided further data. In addition to the decrees of the ministries, documentary evidence included the courses of study of the states and their local adaptations, and official reports of work carried on.

Finally, a check upon the validity of the findings and upon their interpretations was secured by submitting the manuscript to selected authorities on German education.

## FINDINGS

In the programs of teacher training the supervision, usually by an instructor in the college, was so organized as to direct and guide the student and at the same time provide for the development of independence and judgment by maintaining a close relation between professional studies and practical problems.

The probationary period was organized in terms of the relation between preparation and the qualifications desired in the permanently appointed teacher. Supervision, as during the training period, was composed of (1) guidance and (2) the development of independence, but the element of direction assumed a definitely subordinate status. The candidate was placed in a position of professional responsibility, but the mentor and the study groups functioned so as to safeguard the children under the candidate's direction and at the same time aid him in developing his own professional and personal qualifications. Direction and meaning were given to the tasks required by establishing as the final proof of achievement an examination which embodied in its requirements the accepted qualifications of the ideal elementary teacher.

Supervision for the regularly appointed teacher was based upon the fundamental belief that an individual of proved ability could be and should be trusted in making decisions governing the actual performance of the duties assigned to him. Accordingly, its functions at this level were the provision of general rather than specific guidance, of stimulation, and of the material means whereby professional ability might be maintained and growth achieved. To facilitate the actual working of this concept, a plan of cooperative group administration of instructional matters was put into operation in which each staff group was assisted but not controlled by the suggestions and guiding principles set up by the central authority. This latter body also, through various agencies, placed at the service of the teacher such technical and professional aids as might be sought by him either in meeting his practical problems or in advancing his professional abilities. Thus, the placement of responsibility carried with it also the necessary authority for its realization, and the final test of achievement for both the individual teacher and the staff group was the educational results secured.

## IMPLICATIONS

From a consideration of the details of practice worked out to realize these general principles there may be derived certain directive concepts:

First, select prospective teachers from a group of proved intellectual ability and known academic training of a high standard.

Second, provide for these candidates a definite training essentially professional in nature, making the contacts with children cover the whole range of activities carried on by the teacher, and leading to a final goal of complete educational responsibility.

Third, before admitting the candidate into service, place him on trial in a position where he may carry the responsibilities and functions of the regular teacher, as a regular member of the staff, but set about him also means whereby he may secure a specialized type of guidance adapted to his peculiar needs. Require of him before regular appointment definite proof that he possesses the independence of judgment and action needed in meeting the demands which such acceptance will place upon him.

Fourth, when a well-trained, experienced, and mature individual of proved ability is placed in charge of a pupil group, allow him to guide that group as a responsible agent. Make the classroom teacher the center of the educational system in a situation in which he may focus attention upon his work, untroubled by extraneous considerations. Particularly, remove authoritative administration so that the teacher may cease to be regarded as professionally inferior to the administrator and so find it necessary to seek promotion by moving away from classroom teaching. Make the guidance rendered to the classroom teacher suggestive rather than regulatory in nature, allowing for specific adaptations in terms of specific conditions, and place readily available the means necessary to effective instruction and to its continuous improvement.

When teaching is thus established, its personnel becomes stabilized and the teacher, regarding his school placement as permanent, becomes a true member of the community in which he works and an active participant in its life. His training and ability tend to make him, further, a leader in its activities, and his real achievement comes to be measured in terms of the respect in which he is held by his community, his prestige among his coworkers, and his leadership in their professional groups.

## A STUDY OF MECHANISM IN EDUCATION*

WHILE this study is spread over a framework of philosophical criticism, its purpose as conceived by the author is positive. It traces logical roots of the doctrines of scientific curriculum-making expounded by Franklin Bobbitt, W. W. Charters, and C. C. Peters, and seeks to show their true natures and implications. These three exponents of scientific method as applied to educational work were chosen simply because they have been such vigorous leaders. Mechanism, to the author, is a system of thought, a mode of interpretation which has strong appeal to man in his search for an easier way in which to understand the world about him. Question is raised as to whether mechanism is not an over-simplification rather than a newer and more simple interpretation which educators should copy from physics and industry.

Philosophical analysis is the central methodology, with supporting evidence gathered from a wide range of reading. The author has drawn especially from the history of philosophy and the history of science, and

* By WILLIAM L. PATTY, PH.D. Teachers College, Columbia University, Contributions to Education, No. 739.

also from recent writings in the field of mathematical and experimental physics. Evidence has been mustered, too, from the fields of sociology, psychology, social psychology, and educational thought. By discovering the main concepts involved in representative writings from the three selected advocates of scientific curriculum-making, and by carefully applying to them the techniques of philosophical analysis, the author found it possible to draw a clear and unusually complete picture of the doctrines in question. Throughout the study conflicts are indicated between these mechanistic doctrines and those which stand in accord with the organismic interpretations so fundamental to the thinking of Dewey, Kilpatrick, and others of the Progressive Education movement.

### CONCLUSIONS

The following conclusions are chosen as among the more important:

Mechanistic interpretation is but one type of scientific thought, organismic interpretation being another and more satisfactory type. In terms of fundamental concepts the doctrines of Bobbitt, Charters, and Peters are scientific only in the mechanistic sense.

Traditional scientific thought, also referred to as mechanistic scientific thought, has today been undermined by relativity mathematics, quantum theory, and laboratory research—especially of the sort involving electrical phenomena. Therefore, an educational doctrine resting entirely upon mechanistic interpretation must be unacceptable because of its lack of adequate foundation.

The doctrines of scientific curriculum-making analyze readily into an even dozen concepts, each concept showing itself to involve a fundamentally atomistic mode of interpretation. In fact, the central part of the whole methodology of these doctrines is a clear-cut atomism of the sort which means mechanism in both theory and practice. This sort of atomism is much criticized by sociologists, psychologists, physicists, biologists, and educators for its inadequacy as a type of interpretation.

These doctrines of curriculum-making, if ever put to work, could lead only to an extremely subtle form of authoritarianism which would ultimately undermine the strength of society. Blind faith in a methodology is like blind faith in an authority—stultifying to creative interests—and thus is inappropriate to social democracy.

Scientific curriculum-making rests upon a dualistic concept of experience which is philosophically unacceptable and psychologically misleading. Progressive education, or the activity program, rests upon a monistic concept of experience which stands in contradiction to the other concept. Thus there can be no practical or theoretical integration of scientific curriculum-making with the activity program.

The master-list technique is founded upon an impracticably naïve interpretation of the mathematical theory of number, and turns out under careful study to be as atomistic as the concept of experience used by these writers.

The concept of change also turns out to be unsatisfactory, for it involves the theory of simple causation that has proved so unsatisfactory in recent research. In social study especially, but also in physical and biological study, the theory of dynamic continuity has replaced simple causation. This change is taking place also in psychology and the more carefully developed theories of education. The concept of activity must grow out of the theory of causation; hence scientific curriculum-making will have only an inadequate concept of activity.

Learning, in scientific curriculum-making, is fundamentally habit-forming. The dynamic integration of habits is not adequately treated by exponents of this curriculum-making theory, but the dualistic interpretation of experience assumes no adequate theory of the subject-object relationship. Thus a "substance" interpretation is given to knowledge when a "process" interpretation is required.

In brief, the mechanistic theory of curriculum-making has as its chief weakness that rigid determinism which is so much desired in certain phases of industry and machine work but which is so undesirable where individual differences of personality show up through variations in likes and dislikes. Respect for personality is fundamentally lacking in mechanistic thought. Wherever mechanism shows up in education, whether as a mechanized testing movement or curriculum movement or administrative organization, adequate philosophical foundation is lacking.

# MANUSCRIPT WRITING AND SPELLING ACHIEVEMENT*

## WITH REFERENCE TO THE SECOND AND THIRD GRADES

THE number of schools in the United States known to be teaching manuscript writing in 1936 (for the most part in the early elementary grades) was 1,161. Many opinions have been advanced both for and against this style of writing, some of which have not been substantiated by scientific investigations. The present study undertook to evaluate an important phase of the problem, that of measuring the relationship between spelling achievement and the style of writing.

Six New York City public schools participated in the investigation. The control group procedure, which utilized the matched-group technique and the person-to-person pairing of the cases, was followed. For the purpose of equating the groups, reading, intelligence, and initial spelling tests were given to 686 pupils in the experimental schools, where manuscript writing was used, and to 1,041 pupils in the control schools, where cursive writing was used—a total of 1,727 pupils. Spelling gain was determined by subtracting the initial spelling score from the final spelling score. This obtained gain was the outside criterion against which the style of writing was evaluated.

### FINDINGS AND CONCLUSIONS

When the groups were matched by group-to-group equating, differences in spelling gain were not, on the whole, large enough to be statistically significant. In general, the differences reported when the groups were equated on two variables were so small as to offer little evidence in favor of either group.

When the data were analyzed according to the (1) taught words, (2) non-taught words, (3) equated words, and (4) total words, on the basis of a person-to-person pairing of the cases, the differences were, on the whole, unreliable. In the taught word series the differences in spelling gain indicate that the control group gained about one-half word more than the experimental group in the first three half-grades. In terms of actual words, this gain is insignificant.

In attempting to ascertain whether manuscript writing aids in the incidental learning of spelling, an analysis of spelling gain was made for the non-taught words. A slight trend in favor of the experimental group was found, although none of the gains was statistically reliable.

In the equated words series, a statistically reliable difference in favor of the control group was found in the 2A grade. The differences in spelling gain for the other three half-grades were practically zero.

An analysis of the differences in spelling gains based on the total word series of sixty words revealed no statistically reliable

* By JONATHAN W. VARTY, PH.D. Teachers College, Columbia University, Contributions to Education, No. 749.

differences. The gain in the 2A, the 3A, and the 3B grades favored the control group slightly, while the gain for the 2B grade was in favor of the experimental group. These data indicate no definite trend in favor of either group, since the differences in spelling gains consistently approach zero.

When the control and experimental groups were considered as a unit, without reference to grade placement, even smaller differences in spelling gain were found and none of the differences were statistically reliable. The largest gain, accruing to the control group, was less than one word.

From the data which have been presented it is apparent that manuscript writing is of no more assistance than cursive writing in fostering spelling gain in the population studied in this investigation. It may be stated, however, that if manuscript writing helps spelling to any degree, it is probably in the area of incidental learning. However, generalizations cannot be made from the findings, except under normal public school classroom situations. It is possible that with smaller classes, or with classes taught by specially trained teachers, the results might be different.

The findings in this investigation are not in agreement with the reported opinions of educators as to the value of manuscript writing as an aid to spelling. On the contrary, they illustrate again the error of accepting opinion as the sole criterion for judging the value of certain subjects in the curriculum. Since handwriting is a basic subject in the elementary grades, current practices should be subjected to a more exhaustive investigation. There is a definite need for more scientific investigation before manuscript writing is accepted wholeheartedly.

The broader problem of manuscript versus cursive writing should not be decided solely on the basis of the transfer value of manuscript writing to spelling achievement. Both styles of writing have certain advantages, and, for some time to come at least, both manuscript and cursive writing should be included in the public school curriculum.

# College & Alumni Notes

## DIVISION I
## FOUNDATIONS OF EDUCATION

### Social and Philosophical Foundations

Professor Jesse H. Newlon participated in the High School Conference held at the University of Illinois, Urbana, Ill., on November 3 and 4. He spoke before the general session on "The Emerging Secondary School," and before the High School Principals Association on "An Educational Conception of High School Administration."

Professor Harold F. Clark spoke before the Los Angeles City Teachers' Institute on November 7 and 8. His topics were "The World's Greatest Dividend Payer," and "Schools of Tomorrow." On November 9 Professor Clark conferred with the guidance and social science teachers and the administrative council of Pasadena, Calif., and on the following day he addressed a meeting of the Pasadena Rotary Club.

Professor Edmund de S. Brunner attended the annual Minnesota Extension Service Conference of the agricultural and home economics extension staffs on October 20 and 21 at the College of Agriculture, St. Paul, Minn., and delivered addresses on the following topics: "Problems Confronting the Extension Service as an Educational Agency," "Methods in Agricultural Extension," and "Principles, Methods, and Applications of Agricultural Extension."

### Psychological and Biological Foundations

On October 31 Professor Leta S. Hollingworth addressed the faculty of the Honor School of Evander Childs High School, New York City, on the work with rapid learner classes being done at Public School 500, Manhattan, Speyer School.

Professor George W. Hartmann spoke before the Phi Delta Kappa chapter of the School of Education at New York University October 15 on "The Mutual Interpenetration of Educational Psychology, Sociology, and Philosophy."

On November 18 Professor R. L. Thorndike spoke before the Journal Club of the School of Higher Studies in Education at Johns Hopkins University, Baltimore, Md. His topic was "The Constancy of the I.Q."

Professor Percival M. Symonds was chairman of the committee which planned the June, 1938 issue of the *Review of Educational Research*, a number devoted to psychological tests. He contributed "Review and Preview," which is Chapter I of this issue.

Professor Symonds addressed the Student Personnel Section of the Minnesota Education Association at its dinner meeting in Minneapolis on October 27. His topic was "The Significance of Emotional Security for Child Guidance." He spoke to the Association the following afternoon on the subject "New Light on the Art of Interviewing."

During the week of September 5 Professor Symonds attended the meetings of the American Association for Applied Psychology and the American Psychological Association held at Columbus, Ohio. He was a member of the council of the American Association for Applied Psychology and vice-president of the Educational Section. On September 5 Professor Symonds read the vice-presidential address to the Educational Section. In this paper, which was entitled "A New Meaning for Educational Psychology," the point was made that with the establishment of this new association the service which educational psychologists can give to schools and colleges and to other educational undertakings has been definitely recognized and is destined to become the essential meaning of educational psychology. On September 7 Professor Symonds read a paper entitled "Criteria for the Selection of Pictures for the Investigation of Adolescent Phantasies" on a program on Mental Testing, and on September 9 he participated in a round table discussion on "Personality Testing."

## DIVISION II
## ORGANIZATION AND ADMINISTRATION OF EDUCATION

### Administration of Teachers Colleges and Normal Schools

Professor E. S. Evenden was the principal speaker at a testimonial dinner given by the Maryland State Teachers Association and the Alumni Association of Maryland State Teachers College, Towson, Md., in honor of Dr. Lida Lee Tall, retiring president of the State Teachers College. Dr. Tall, an alumna of Teachers College and Alumni Trustee, 1915-1917, has been at Towson since 1920—as principal of the Normal School until 1934, and as president of the Teachers College since that time. Her retirement was effective at the beginning of the present academic year.

Professor W. C. Bagley was the principal speaker at the Foreign Language Conference held at New York University November 19. His topic was "The Place of Foreign Languages in the Curriculum as Viewed by the Essentialist."

### Administration of Public School Systems

The Administration Club met at the home of Professor and Mrs. George D. Strayer in Riverdale, N. Y., on November 19. Professor Strayer spoke on "Changing Conceptions of School Administration." A discussion period and social hour followed his talk.

Professor Strayer attended the meeting of the Educational Policies Commission of the National Education Association held in Chicago November 25 to 29, and participated in the discussion of forthcoming publications of the Commission.

A meeting of the Committee on Government and Educational Finance of the American Council on Education, of which Professor John K. Norton is chairman, was held in New York on November 4. The time was devoted to outlining a program of research and investigation.

On November 20 Professor and Mrs. N. L. Engelhardt entertained the students and faculty members in School Administration and the Department of Advanced Professional Education at tea in their home in Fieldston, N. Y.

In cooperation with the America Association for Adult Education, and under a grant of $5,000 from the Carnegie Corporation of New York, Professor Engelhardt is undertaking a study of school buildings and school building plans from the point of view of adult use. Ten graduate students in School Administration are assisting in this study.

Mimeographed copies of the report on "The Need for a State-Wide Survey of Education in Colorado," which was made in September by Professor Engelhardt, Dr. J. Cayce Morrison of the New York State Education Department, and Dr. M. G. Neale of the University of Minnesota, have been prepared by Secretary W. B. Mooney of the Colorado State Teachers Association, and distributed by the Educational Policies Commission.

Mr. Ralph Dailard passed the final oral examination for the degree of Doctor of Philosophy at Teachers College, Columbia University, last summer and has gone to the University of Alabama, University, Ala., as assistant professor of school administration.

Mr. Charles E. Hawkes, formerly superintendent of schools at Oberlin, Kan., is now superintendent of schools at Salina, Kan.

Mr. Maynard Linn, at present superintendent of schools at Greenwich, Conn., was formerly assistant superintendent of that school system.

Mr. George R. Champlin, who spent the past two years at Teachers College completing his work for the degree of Doctor of Education, is principal of Henry Barnard School, New Rochelle, N. Y.

Mr. Robert O. Evans, formerly superintendent of schools at Helena, Mont., has succeeded Mr. W. H. Lemmel as superintendent of schools in Quincy, Ill., and Mr. Lemmel has gone to Highland Park, Mich., as superintendent.

Dr. Guy L. Hilleboe (Ph.D. 1930), who was principal of a junior high school in Port Chester, N. Y., has gone to Rutherford, N. J., as supervising principal.

Dr. Earl F. Sykes, who recently received the Doctor of Education degree from Teachers College, Columbia University, has been appointed associate professor of education at State Teachers College, West Chester, Pa.

Mr. Jack R. Morton spent the past year at Teachers College completing his course requirements for the Doctor of Education degree. He is now associate professor of education at Mississippi State College, State College, Miss.

## Administration of Secondary Schools

The Secondary Group, an informal association of professional men in secondary education in and around New York City, held its first meeting of the current year on October 17. After a dinner at the Men's Faculty Club, the evening was devoted to a discussion of what our professional organizations are doing and should do, with especial consideration given to the matter of what publications and services they are prepared to furnish.

At the November 14 meeting of the Group, Professor Thomas H. Briggs led a discussion on the necessity of teaching high school pupils to read. He emphasized the greater importance of a continued constructive program than of the popular remedial instruction.

In the October issue of *Educational Administration and Supervision* there is a memorial by Professor Briggs on President Lotus D. Coffman of the University of Minnesota, who died in September. Dr. Coffman was an alumnus of Teachers College, having received the degree of Doctor of Philosophy in 1911.

The activities of the Secondary Club this year have included a series of teas held on alternate Thursday afternoons. At the October 13 meeting the members enjoyed a timely talk by Professor P. M. Symonds on "Autumn Walks Around New York,"

and on October 27 Dr. William H. Blake spoke on "Voice, Gesture, and Personality." Miss Dorothy Bennett of the Hayden Planetarium attended the tea given November 10 and talked informally on "Making Friends with the Stars."

The following students are officers of the Club for this year: President, Alfred Baruth; vice-president, Howard Thomas; and secretary-treasurer, Lillian Brown.

Professor Briggs's address on "Articulation of the High School and College," which he gave in March before the Southern Association of Colleges and Secondary Schools, was published in the August, 1938 issue of the *Southern Association Quarterly*.

Professor Will French addressed the high school conference at Harrisburg, Pa., October 27 and 28 on the work of the Department of Secondary School Principals.

On November 2 Professor E. K. Fretwell addressed the State Association of Nurses of Rhode Island at its meeting in Providence on the topic "Extracurricular Activities for Nurses." On November 3 Professor Fretwell spoke at the thirteenth annual meeting of the New Jersey Association of High School Councils at Rutgers University, New Brunswick, N. J. Nearly one hundred high schools were represented. This Association found it necessary to restrict attendance to one teacher-sponsor and an authorized group of pupil representatives from each high school, inasmuch as attendance had grown so large that it was practically impossible to find a meeting place. Mr. Edward Mailly of Ferris High School, Jersey City, was the adult adviser of this conference. On November 4 and 5 Professor Fretwell spoke at the state educational meeting held at Durham, N. C. Mr. Burt Johnson, principal of the high school at Goldsboro, N. C., was chairman of the administrative section.

### Administration of Adult Education

Professor Lyman Bryson, who has been chairman of the Adult Education Board of the Columbia Broadcasting System for the past year, began on July 20 a program under his own direction. The broadcast, which is now given on Sunday evenings at seven o'clock New York time, is called The People's Platform, and is a discussion of current affairs.

On October 4 Professor Bryson spoke at a meeting of the Douglaston, N. Y., Woman's Club on "What Shall We Do with the Radio?"

At a conference on Adult Education for Negroes held in Hampton, Va., October 20 to 22, Professor Bryson spoke on "Mass Education and Controversial Issues" and conducted a panel on "Primary Objectives for Negro Education."

Professor Wilbur C. Hallenbeck participated in a symposium discussion of some administrative and instructional problems of the adult school at the meeting of the New Jersey Council on Adult Education held November 11 in Atlantic City, N. J., as a part of the annual meeting of The New Jersey State Teachers Association. He also made the conference summary.

## DIVISION III
## GUIDANCE

### Student Personnel Administration

On November 7 Professor Sarah M. Sturtevant attended a conference on The Education and Placement of Women, called by President J. Hillis Miller of Keuka College, Keuka Park, N. Y. Some of the topics discussed were: "The Status of Women from the Historical Point of View," "The Abilities of Women," "Some Traditions That Affect the Place of Women," and "Are Women Tending to

Return to the Occupations of the Nineteenth Century? If So, Is the Return Forced or Preferential?" Other members of the conference were: Dr. Lillian Gilbreth of Montclair, N. J.; Dr. Chase Going Woodhouse, director of the Institute of Women's Professional Relations, Connecticut College for Women; Mrs. Harper Sibley of Rochester, N. Y.; Dr. Helen Bragdon, dean of Hood College; Dr. Dorothy Stratton, dean of women, Purdue University; Miss Edna Noble White, director of Merrill-Palmer School, Chicago, Ill.; Dr. Harriett Allyn, dean of Mount Holyoke College; Mrs. Ellis Phillips, Plandome, L. I.; Mrs. George Hamlin, trustee of Keuka College; Dr. Chloe Owings, dean of students, Keuka College.

Professor Sturtevant addressed the Women's Intercollegiate Association for Student Government at Russell Sage College, Troy, N. Y., October 28, on "Student Participation in Government," and conducted a discussion on "Orienting the Freshmen as a Student Government Project." On November 14 she spoke to the seniors of Horace Mann School and their parents on "Some Surprises That College May Bring to New Students."

The Student Personnel Administration Club has elected the following officers for the current semester: President, Dr. Genevieve Chase, recently dean of women, Kalamazoo College, Kalamazoo, Mich., and at present intern in the Guidance Laboratory; vice-president, Mr. Robert Miner, previously sales engineer, W. H. Miner Co., Chicago, Ill.; secretary, Miss Danelle Yates, teacher of English and history, Gulf Park College, Gulfport, Miss.; treasurer, Miss Mary Jane Howell of the University of Wisconsin, Madison, Wis.

On November 17, Dean Herbert Hawkes, of Columbia College, addressed the Club and its guests, the students in Higher Education, on "New Developments in Counseling Plans at Columbia College."

The major students in Student Personnel Administration represent twenty-six states in the Union and fourteen fields of work. Thirty-three per cent have been actively engaged in the college field; 41 per cent in the high school field; and 26 per cent in various other fields of professional work. Six of these students are now studying for higher degrees in the Advanced School of Education and three are doing post-doctoral work.

At the meeting of the New York State Association of Deans held in Schenectady, N. Y., November 10 to 12, Professor Esther Lloyd-Jones led a panel discussion on "Avenues of Guidance," Professor Harriet Hayes spoke on the topic of housing, and Professor Sturtevant on religion. Ways in which the individual is influenced through the environment, housing, extra-class activities, the classroom, the arts, religion, the home, the community, and the economic world were discussed. Other speakers on the panel were: Mr. Harry Linton of Schenectady, Miss Margaret Hayes of Albany, Dr. Theodore Newcomb of Bennington, Mrs. St. John Oye of Brooklyn, Miss Catherine Reed of Buffalo, and Mr. Donnal V. Smith of Albany.

Professor Ruth Strang, Miss Dorothy Crim, girls' adviser, High School, Seattle, Wash., and Miss E. Myrtle Snyder, principal, High School, Shillington, Pa., are participating in the survey of the schools of St. Louis which is being made under the direction of Professor George D. Strayer. They are primarily responsible for a survey of the guidance work in elementary and high schools. Mr. C. J. Alderson, teacher and coach, High School, Austin, Tex., a member of the major class, is assisting in the survey of physical education.

## Guidance and Personnel

On October 22 Profesor Harry D. Kitson entertained the students majoring in Guid-

ance and Personnel at tea at his apartment. Approximately one hundred fifty attended. Guests of honor were Dr. and Mrs. Edwin A. Lee of Teachers College; Miss Mary P. Corre, director of occupational research and counseling in the Cincinnati Public Schools; Dr. O. Latham Hatcher, president of the Alliance for Guidance of Rural Youth; Miss Frances Cummings, president of the National Vocational Guidance Association; and Dr. John Bergstresser of the General Education Board. In a brief business session devoted to the interests of the Teachers College Branch of the National Vocational Guidance Association, the following officers were elected for the current academic year: President, Henry B. McDaniel, San Diego, Calif.; secretary-treasurer, Frances Meyer, Glen Cove, L. I.

Professor Kitson presided at the October meeting of the New York City Branch of the National Vocational Guidance Association and led a panel discussion on the topic "Whither Vocational Guidance?"

On December 1 Professor Kitson addressed the annual convention of the American Vocational Association at St. Louis on "Trends and Problems in Vocational Guidance."

Mr. Anthony C. Tucker has accepted a position as assistant to Dr. Joseph Hanna in conducting the Personal Counseling Service at the West Side Y.M.C.A., New York City. Dr. Hanna is collaborating with Walter Pitkin in giving a series of Sunday afternoon broadcasts (at four-thirty over station WOR) devoted to helping people overcome the difficulties encountered in occupational life.

### Guidance Laboratory

Dr. Walter Langer, who was in charge of the Guidance Laboratory during the summer of 1937, spent last year in Vienna working with Dr. Anna Freud.

Dr. Katherine Taylor, formerly an intern in the Guidance Laboratory and recently appointed chief of the Bureau of Preventive Hygiene of the State of Wisconsin, spent a few days in November visiting the Guidance Laboratory.

"The Fulcra of Conflict," a new approach to personality measurement, by Mr. Douglas Spencer, will be published soon by World Book Company.

## DIVISION IV
## INSTRUCTION

### Curriculum and Teaching

A revised edition of *Enriched Teaching of Mathematics*, by Professor Maxie N. Woodring and Dr. Vera Sanford, has been published by the Bureau of Publications of Teachers College. This revision incorporates a great deal of new material for use by mathematics teachers. Dr. Sanford, formerly of Lincoln School of Teachers College, is now head of the department of mathematics, State Normal School, Oneonta, N. Y.

Professor Woodring is offering a new type of extramural course in Mamaroneck, N. Y., this semester to a group of teachers interested in materials of instruction. The course involves laboratory work in the classes with supervision by the instructor.

Miss E. Mae Raymond was a guest speaker at the Cooperative School for Student Teachers, New York City, on October 20. The topic discussed was "The Development of the Teachers College Nursery Schools as Laboratory Centers in the Teacher-Training Program at Teachers College, Columbia University."

Miss Lula Wright spoke to the faculty of the Willimantic State Teachers College, Willimantic, Conn., September 5 on "The Place of Reading in the Curriculum."

Miss Edith Conard has been appointed chairman of the Kindergarten-Preschool Section of the World Federation Education Association. In this capacity Miss Conard will attend the eighth biennial congress of the Association in Rio de Janeiro in August 1939.

## Social Science

Professor Merle Curti addressed the members of the Middle States Association of Teachers of History and Social Studies in Atlantic City, N. J., October 29 on the topic "Wanted: A History of American Patriotism."

Professor Mary E. Townsend is giving a course of five lectures on "The Recent European Crisis and What Lies Behind It" at Riverside Church, New York City, under the auspices of the International Affairs Group of the Women's Society.

## Natural Sciences

On October 21 Professor G. S. Craig addressed the Morris County Institute, Morristown, N. J., on "The Changing Concepts in the Teaching of the Content Areas." On October 25 and 26 he led a series of conferences for the Teachers' Club of Lynchburg, Va.

Professor Herbert J. Arnold gave an illustrated lecture on the topic "A Geologist Visits Scandinavia and Iceland" to the Science Section of the New York State Teachers Association on October 28 at Buffalo, N. Y.

## Mathematics

Professor W. D. Reeve spoke to the Mathematics Section of the Indiana State Teachers Association meeting in Evansville, Ind., October 27 on "Pressing Curriculum Problems in the Teaching of Mathematics." He discussed the same topic before the Mathematics Section of the Ohio State Teachers Association at Cincinnati on the following day. On the latter date Professor Reeve also attended a meeting of the Cincinnati Mathematics Club, at which the recent Report of the Joint Commission of the Mathematical Association of America and the National Council of Teachers of Mathematics on "The Place of Mathematics in Secondary Education" was discussed. Professor Reeve is a member of the Joint Commission.

## English

Professor Allan Abbott will discuss the cultural background of the English teacher at the Saturday session of the annual fall meeting of the New England Association of Teachers of English, to be held in Hartford, Conn., December 9 and 10.

Professor Ida A. Jewett attended the St. Louis convention of the National Council of Teachers of English on November 24 to 26, where she presided over the meeting of the section on the teaching of English in teachers colleges. On November 24 she held a meeting of the Council's Committee on Curricula for the Education of Teachers of English. On December 3 Professor Jewett will attend a meeting in Chicago of a committee of the American Association of University Professors studying curricula for the preparation of secondary school teachers.

On November 26 Mr. Walter Ginsberg addressed a section meeting of the National Council of Teachers of English on "Some Applications of Technological Progress to the Enriched Teaching of English."

In the survey of St. Louis schools being carried on by Teachers College, Professor Jewett made a study of the various aspects of

the teaching of English in elementary and secondary schools.

## Foreign Languages

On November 2 Professor A. L. Cru gave an illustrated lecture at the Institut des Etudes Françaises of Columbia University. His topic was "Sur les Routes de France et de Corse." On November 5 Professor Cru addressed the Lehigh Valley Chapter of the American Association of Teachers of French at Allentown, Pa., on the topic "Une Mise au Point nécessaire de la Méthode Directe."

Le Cercle Français of Teachers College has held three meetings and given a tea and an informal dance this year, and is planning to give a play in December.

Professor D. P. Girard talked informally to the French students of the Passaic, N. J., High School on November 22. His topic was "La France et sa Civilisation d'après ses Timbres-Poste."

For the third consecutive year Professor Girard is editor of the Varia section of *The French Review*, the French teachers' national professional magazine.

Professor W. L. Carr represented Teachers College at the inauguration on October 28 of Dr. David Wilbur Peters (Ph.D. 1934) as president of State Teachers College, East Radford, Va.

During the week of November 14 Professor Carr and Professor Girard participated in the survey of the St. Louis public schools.

At the meeting of the Southern Section of the Classical Association of the Middle West and South held in Atlanta, Ga., November 24 to 26, Professor Carr read a paper on "Vocabulary Burden in College Latin."

Professor Carr is associate editor of *The Classical Outlook*, the official organ of the American Classical League.

## Music and Music Education

On October 21 and 22 Professor James L. Mursell addressed the student body of Pennsylvania State Teachers College, Indiana, Pa., on "The Importance of Initiative in Education," and the regional conference of music and art teachers on "The Meaning of Integration in the Arts." At Miami University, Oxford, Ohio, on October 27 Professor Mursell gave a talk to students in psychology of music on "The Inheritance of Musical Ability." He addressed the general session of the Southwestern Ohio Teachers Association at Cincinnati, October 28, on "The Place of Music in a Democratic Education," and the Music Section on "The Meaning of Integration."

Professor Lilla Belle Pitts is conducting an extramural course in Westfield, N. J., this semester.

In October Professor Pitts gave a talk to the Federal Music Project executives in New York City, and to the Western Zone of the New York State Teachers Association in Buffalo. In November she addressed the State Teachers Association at Atlantic City, the Plainfield, N. J., Teachers Association, the Long Island Music Teachers Association, and a meeting of the Executive Committee of the Music Educators National Conference.

Professor P. W. Dykema is serving as commentator on the Columbia Broadcasting System's School of the Air Series devoted to the Development of Music in America. These broadcasts are heard on Tuesday afternoons at two-thirty.

During the two weeks beginning November 7 Professor Norval L. Church, assisted

by Mr. Donald E. Johnson and Mr. Van A. Christy, made a study of the music curriculum of the St. Louis public schools as part of the survey which is being conducted by the Division of Field Studies of Teachers College.

The Teachers College chapter of Sigma Alpha Iota held a special meeting October 31 at which Mrs. Elizabeth Sprague Coolidge was initiated into honorary membership. Music was furnished by Mrs. Lucille Dresskell and by the Hunt Trio from the New York Women's Symphony Orchestra. Antonia Brico, the leader of the orchestra, delivered a brief address on the status of women in music.

Mr. Gail T. Kubik's "Daniel Drew," a new choral work for mixed quartet, cello and bass, had its European premiere the first week in November at a concert given by Mlle Nadia Boulanger in London over the network facilities of the British Broadcasting Company. On April 15 Mr. Kubik's composition will be heard in its American premiere at the Library of Congress, Washington, D. C. "Daniel Drew" is dedicated to Mrs. Elizabeth Sprague Coolidge.

Mr. Kubik was recently appointed to the program committee of the National Association of American Composers and Conductors.

The Christmas party of the department of Music and Music Education will be held on Saturday, December 10.

## Fine and Industrial Arts

Professor Arthur Lismer, educational director of the Art Gallery of Toronto and director of the Children's Center at the Gallery, is visiting professor of Fine Arts at Teachers College for 1938-1939.

Professor Belle Boas gave lectures on medieval art to the adult education group in Pelham, N. Y., on November 14 and 21.

During the current semester Professor Fred Strickler is spending Mondays visiting classes in industrial arts as they are being offered in representative schools in the metropolitan area. During October he spent a day in each of the following school systems: Jersey City and Newark, N. J.; Greenwich and Stamford, Conn.; and New York City.

## Household Arts and Science

The staff of the department entertained the Household Arts and Science students on the evening of November 2 at a dessert and coffee party. Professor Mary S. Rose talked to the group about the beginnings of Teachers College. Approximately seven hundred students are enrolled in this department.

Professor Lillian Locke has made a study of home economics in St. Louis schools as part of the survey which the Division of Field Studies of Teachers College is conducting.

Professor Helen Judy-Bond attended the East Tennessee Education Association meeting October 28 and 29, and spoke to the home economics teachers on the subject "New Challenges and New Demands in Home Economics."

Professor Bond attended a two-day conference of food service directors in Rochester, N. Y., as representative of the American Home Economics Association.

At the meeting of the National Academy of Sciences held at the University of North Carolina, Chapel Hill, N. C., October 24 to 26, Professor Henry C. Sherman read a paper on "Experiments on the Relation of Nutrition to the Composition of the Body and the Length of Life." Dr. H. Louise Campbell and Dr. Caroline Sher-

man Lanford assisted in the preparation of this paper.

Professor Sherman addressed the Seventh International Management Congress held in Washington, D. C., in September on "Human Nutrition."

In October Professor Rose attended the annual meeting of the American Dietetics Association in Milwaukee, Wis., and spoke to the group on "Nutrition and the Health of the School Child."

Professor Rose and Dr. Clara M. Taylor are giving an extension course in nutrition and health for a group of teachers in Hempstead, L. I.

Professor Rose gave a lecture at the Lower West Side Health Center, New York City, November 3 on the topic "Nutrition: Influence of Diet in Improving Health," as part of an in-service course on Modern Medicine for Teachers which is being offered in the Lower West Side Health District. Professor Rose also gave a lecture at the East Harlem Health Center November 17 on "Nutrition as a Means to Better Health."

In November Professor Benjamin R. Andrews gave an address over station WNYC on the new Savings Bank Life Insurance System for New York State Savings Banks, which was authorized by the legislature a few months ago and which will be inaugurated January 1.

Professor Andrews' address on "Consumer Purchasing as World Building," which he delivered before the National Education Association in June, was published in the September number of *Secondary Education*, the bulletin of the Department of Secondary Education of the National Education Association.

Professor Andrews addressed the Plainfield, N. J., Teachers Association October 25. The subject of his address was "The Road Toward Peace."

## Vocational Education

On October 25 Professor Edwin A. Lee addressed the New York Vocational Guidance Association on the topic "Whither Vocational Guidance?"

Professor Lee was one of the speakers at the annual convention of the Rhode Island Institute of Instruction at Providence on October 27. The subject of his address was "Youth and the Days Ahead."

## Commercial Education

Professor Hamden L. Forkner addressed the Commercial Teachers Section of the East Tennessee Education Association at its annual convention in Knoxville in October on "The Social Responsibility of Business Education."

The Southern Business Education Association, which includes thirteen southern states, held its annual meeting at Atlanta, Ga., November 24 to 26. Professor Forkner spoke at the general session on "The Responsibilities of Business Education in the Guidance of Youth." He also led the discussion in the College and University Section on "The Problems of Business Education in Colleges of Business and Teacher-Training Institutions."

Mrs. Esta Ross Stuart spoke before the Delaware Commercial Teachers Association November 11 on the topic "Can Typewriting for Personal and Vocational Use Be Taught in the Same Class?"

Mrs. Stuart engaged in an informal debate with Mr. Louis Leslie of the Katharine Gibbs School at a meeting of Delta Pi Epsilon, an honorary graduate business education fraternity, on November 18.

The subject of the discussion was "The Fundamental Principles Which Govern the Acquisition of Transcribing Skill."

### Health and Physical Education

On October 28 Professor Jesse Feiring Williams attended the convention of the South Piedmont District Teachers Association and addressed the General Session, the Physical Education Section, and the District Schoolmasters Club. The general theme of the convention was "Meeting Present Needs with a Vitalized School Program." On November 4 Professor Williams spoke to the Physical Education Section of the Wisconsin Teachers Association on the topic "Trends and Implications in Health and Physical Education."

Professor Josephine L. Rathbone has returned to Teachers College after a year's leave of absence, seven months of which were spent in India. In the capacity of consultant and adviser in health and physical education to the Training School of the Y.M.C.A. in Madras, Professor Rathbone traveled through India, visiting the graduates and helping them with their individual programs. On the return trip to America, she spent ten days at the School for Girls in Beirut, Syria, with Miss Lily Tabulsi, a former student of Teachers College, and visited Mrs. Helen Frost Tombazi, a former instructor in Health and Physical Education at Teachers College. While in England and Scotland, Professor Rathbone studied the new physical fitness program.

On October 21 at the district meetings of the North Carolina Education Association, Professor Clifford L. Brownell was the speaker before the joint session of elementary school principals and physical education group, which was held in Greensboro, N. C. He also gave a series of talks before the thirty-fourth annual meeting of the East Tennessee Education Association held in Knoxville October 27 to 29.

Professor Brownell is participating in the survey of the schools of St. Louis which is being conducted by the Division of Field Studies of Teachers College. He is making a study of the work in health, safety, physical education, and recreation.

At the Lackawanna County teachers meeting held in Scranton, Pa., October 27 and 28, Professor F. W. Maroney gave talks on the topics "Modern Tendencies in Health Education," "The High School Teacher's Responsibilities in the Field of Mental Hygiene," and "Health Education for All."

## DIVISION V
## NURSING EDUCATION

On October 28 Professor Mary Ella Chayer addressed the Health Education Section of the Maine Teachers Association at Bangor on the subject "The Cooperation of the Nurse with the Girls' Athletic Director," and conducted a round table for rural public health nurses on "School Health Problems." Professor Chayer also visited the American Red Cross Chapter of Northeast Harbor, and a district health unit at Dover-Foxcroft, Me.

Professor Isabel M. Stewart attended a conference on nursing education in St. Paul, Minn., October 22 as a representative of the National League of Nursing Education.

## EDUCATIONAL DEMONSTRATION AND PUBLIC SERVICE

### Horace Mann School

"Ideas That Came True" is the title of a new series of social science presentations

which is being broadcast by Professor Rollo G. Reynolds over a nation-wide network of the National Broadcasting Company on Thursday afternoons at two o'clock. This series of twelve talks dealing with the various curricular areas of transportation and communication was begun on November 3.

Mr. Willis C. Armstrong represented Horace Mann School at the annual meeting of the National Council for the Teaching of Social Studies held at Pittsburgh, Pa., November 25 and 26.

On October 26 Miss Mary Harden spoke at a meeting of the Elementary Section of the Michigan Education Association in Grand Rapids on "Rubbing Elbows with Reality," and on November 14 she addressed a parent-teacher group of the Woodhull Day School, Hollis, L. I., on the topic "How Parents May Help to Build the School's Program."

## Lincoln School

Professor Lester Dix and the staff of Lincoln School are giving the extramural course Education em211L, Experimental Schools at Work, this winter. Professor Dix, Dr. Gertrude Driscoll, and Mrs. Arensa Sondergaard are also participating in Education em211Ac, an extramural course on Curricular Practices in a Modern Laboratory School which is being offered at Patchogue, L. I.

Professor John R. Clark is the author of a text entitled *Modern School Geometry*, which was published recently by World Book Company.

Professor Clark and Dr. H. Emmett Brown are assisting in the curriculum revision program of Wilmington, Del.

Miss Elaine Dickinson took part in a round table discussion at the consolidated elementary and high school of Pine Plains, N. Y., on October 26. The subject discussed was "Industrial Arts Activities, in Use and Possible."

As part of a three-day program sponsored by the Extension Service of the College of Agriculture of Rutgers University, Dr. Driscoll spoke at New Brunswick, N. J., September 27 on "Contemporary Family Trends."

*Grammar for Everyday Use*, by Helen F. Daringer, is a recent publication of World Book Company.

Under the sponsorship of the New Jersey State Science Teachers Association, Mr. Hubert M. Evans gave a talk October 15 on "The Geology of Northern New Jersey and Vicinity" at New Jersey State Teachers College, Upper Montclair, N. J. He lectured at Gloversville, N. Y., and Greenwich, Conn., in October in connection with an extramural course on science in public schools which is being conducted by Teachers College.

Mr. Evans took part in the survey of the St. Louis schools which is being conducted by the Division of Field Studies of Teachers College, his work being the analysis of science courses of study.

Mr. Edwin S. Fulcomer contributed an article entitled "And Where Does English Come In?" to the November issue of *The English Journal*. On October 5 Mr. Fulcomer gave a talk to the Parent-Teacher Association of Larchmont, N. Y., on "School Trips at Lincoln."

Mr. Colba F. Gucker is vice-president of the New York Section of the American Camping Association for 1938-1939.

Mr. Gordon R. Mirick has prepared a mimeographed booklet entitled "An Algebraic Approach to Plane Geometry." He spoke on this subject October 22 at a meeting in Hartford, Conn., of the Teachers of Mathematics in New England.

Miss Wanda Robertson contributed an article on "Knowing Children at School" to *Childhood Education* for October, 1938.

Under the auspices of the Utah State Department of Education, Miss Robertson spoke at Mount Pleasant September 3 on "Personality Development in Modern Schools" and at Midvale September 17 on "Modern Schools at Work."

On September 15 Miss Lula E. Wright gave a talk on "Beginning Reading" at Willimantic State Teachers College, Willimantic, Conn. In October Miss Wright served on a panel in a speech course at Teachers College.

Miss Rose Wyler is participating in the extramural course in the teaching of elementary science which is being offered at Gloversville, N. Y., and Greenwich, Conn. Miss Wyler is also serving as consultant for the American Book Company on its science program, and as educational adviser for New Horizons, a CBS-AMNH broadcast, and for the Chicago Radio Council of the Chicago Public Schools.

## New College for the Education of Teachers

For many years Teachers College, through its department of Normal School Education, has been developing ideas for the better education of teachers. Seven years ago, owing to the lack of facilities for experimentation and demonstration in the field, New College for the Education of Teachers was established under the leadership of Professor Thomas Alexander. This experiment has had the widest influence. The aim has been to demonstrate the proper scope of teacher education and the practicability of new methods. This year there is a fine enrollment, and commendable progress is being made in all departments of New College. Professionalized subject matter, the seminar approach, field work experience, community organization, foreign study, internship, educational guidance, new type records and reports—all these are securing wide recognition and incorporation in other institutions for the education of teachers. No experiment has been more valuable for Teachers College.

Nevertheless, Teachers College is confronted with problems which appear insurmountable. The deficit of New College last year was $57,000. It is estimated by Teachers College officials that a subsidy of $35,000 a year would be required to provide the desired type of program, not including any charges for heat, light, supplies, and maintenance.

Substantial gifts for New College have not been forthcoming. Teachers College, because of a decrease in gifts, a decline in earnings from investments, and increased expenses, cannot continue large subsidies to New College. The students alone would be unable to keep the school running; this would require double the present tuition charges.

In the light of these circumstances, New College cannot continue as a separate enterprise. Its discontinuance as an experimental unit of Teachers College has been recommended as of June 30, 1939, and this recommendation has been approved by the President of Columbia University and by the Board of Trustees.

Teachers College wishes to make the best adjustment possible for the students of New College who have registered expecting four full years of work of a special kind. No plan has as yet been decided upon nor will a decision or announcement be made until the complete facts have been assembled.

Each New College student will be given the opportunity to complete his work in Teachers College under a plan as closely approximate to the New College plan as is possible. The Faculty are now considering new plans for experimentation and demonstration in the field of educating beginning teachers, under an organization more closely integrated with the College.

## THE LIBRARY

Miss Ethel M. Feagley spoke on the "Unit Method of Library Instruction" at the meeting of the New York State Teachers Association held October 28 at Rochester, N. Y.

The October issue of *The Library Consultant Book List*, entitled "School Holidays," contains a list of books and indexes which will be useful to teachers who must plan holiday programs. There are still available a few copies of the July issue, "Book Reviews," which lists books and articles offering suggestions for writing book reviews and gives brief directions for locating reviews of specific books. Single issues are available at five cents; the subscription price is fifty cents a year for ten issues.

Miss Helen Lawrence Scanlon spoke on "School Librarianship as a Career" at the October 24 meeting of the Vocations Group of the Mount Holyoke Alumnae Association of New York City.

"Book Week" is the title of the November issue of *Classroom Literature*, the monthly publication of the School Library Laboratory. This issue reviews some of the publications new and old that will be useful for Book Week celebrations. It suggests pageants and plays to be given, cites Book Week projects that have been successful, and notes various new lists of worth-while books for children.

## OFFICE OF PLACEMENT SERVICE*

The following list continues the appointments reported by the Office of Placement Service in the November RECORD:

McDonald, Christine (A.M. 1938), instructor in music, Tappan Junior High School, Ann Arbor, Mich.

McElroy, Grace (A.M. 1935), teacher of nursery school, kindergarten, and music, Private School, Maracaibo, Venezuela, S. A.

McGrath, Catharine M. (B.S. 1938), assistant dietitian, Orthopedic Hospital, New York City.

McIntyre, Alice E., instructor in foods and home management, University of Tennessee, Knoxville, Tenn.

McKee, Mildred R. (A.M. 1938), teacher of Latin, Barrington School, Great Barrington, Mass.

McKenzie, Margaret R., teacher of science, Hockaday School, Dallas, Tex.

McMillan, Eileen (A.M. 1932), supervisor of teacher training in music, Training School, Miami University, Oxford, Ohio.

McNally, Wayne (A.M. 1934), principal, Junior High School, Providence, R. I.

Meier, Paul T. (A.M. 1930), director of industrial arts and vocational guidance, High School, Cleveland Heights, Ohio.

Meiring, Mary E. (A.M. 1938), teacher of commercial education, Langley Junior High School, Washington, D. C.

Mendenhall, Thomas S. (A.M. 1935), head of science department, teacher of chemistry and physics, Kingswood School, West Hartford, Conn.

Meyer, Antoinette C. (A.M. 1938), teacher in intermediate grades, Public Schools, Evanston, Ill.

Middlebrook, Mabel (A.M. 1938), teacher of kindergarten, Public Schools, Wellesley Hills, Mass.

Mileham, James W. (A.M. 1935), teacher of high school science and mathematics, American School, Aruba, D. W. I.

Miller, Evelyn (Ph.D. 1932), dean of women, associate professor of educational guidance, San Diego State College, San Diego, Calif.

*Any student who is taking or has taken twelve points of work at Teachers College or any graduate of Teachers College may register with the Office of Placement Service. No fee is charged. For information write to the Placement Office for its booklet, *Employment of Teachers and Administrators.*

Miller, Henry S. (A.M. 1929), instructor in economics and social studies, Queens College, Flushing, N. Y.

Miller, Mary Grace (A.M. 1924), instructor in art, University of Colorado and Boulder High School, Boulder, Colo.

Mills, Frances M. (A.M. 1938), teacher of social sciences, Junior High School, Valley Stream, L. I.

Mitchell, Edith L. (A.M. 1930), state director of art education, State Department of Education, Dover Del.

Mitchell, Marjorie, president, Cottey College, Nevada, Mo.

Molloy, Jeanette (A.M. 1934), critic teacher in grade five, University of Kentucky, Lexington, Ky.

Moore, Stanley W., teacher of commercial subjects, Pace Institute, New York City.

Morrissey, John S., Instructor in music and director of instrumental music, Tulane University, New Orleans, La.

Morse, Emily P. (A.M. 1937), teacher of kindergarten, Day School of Church of Heavenly Rest, New York City.

Muller, Theresa G. (A.M. 1933), assistant professor of nursing education, Russell Sage College School of Nursing, Albany and Troy, N. Y.

Murphy, Charles (A.M. 1936), executive director, Bristol Boys' Club, Bristol, Conn.

Neff, Gaynell (A.M. 1930), director of residence, Western Reserve University, Cleveland, Ohio.

Nichamin, Bess, substitute teacher, parent education and child development, Public Schools, Rochester, N. Y.

Nickols, Patrice, grade supervisor and junior high school teacher of music, Public Schools, Westbury, L. I.

Norman, Philip B., teacher of mathematics, Friends Academy, Locust Valley, L. I.

Norman, Ralph D. (A.M. 1936), psychologist, Mississippi State Hospital, Whitfield, Miss.

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